ISSN 1059-1249

Volume 32 No. 4

collecting... projecting...

the magic lantern Gazette

and sharing

- See article inside

The Magic Lantern Society of the United States and Canada

www.magiclanternsociety.org

Two Different Books Available

The Magic Lantern in the Northwest

52 pages

Table of Contents
When lanterns were used in NW
Asahel Curtis creator of lantern slides
Canadian Pacific Railroad
  Magic Lantern slides
Others Created Magic Lantern slides
Those that used slides to tell stories
Slides that show the Northwest
Others were told about the Northwest
  with slides and readings
Manufacturers and producers of
  lantern material
Founders of the society
The Last Magic Lantern Show
Contributors

Only 14 copies available

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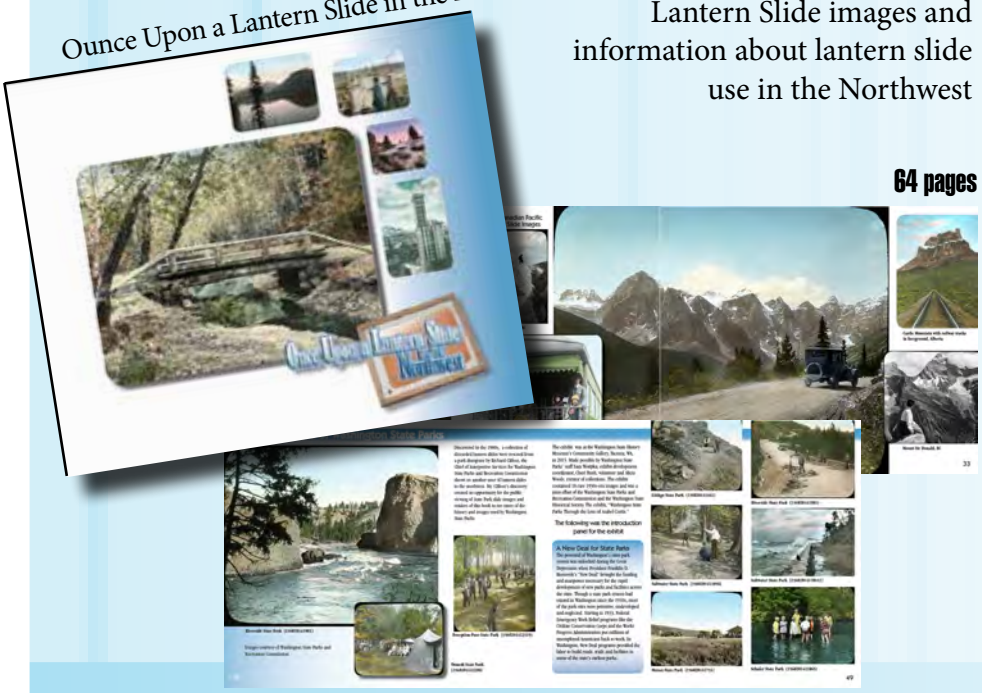
Ounce Upon a Lantern Slide in the Northwest

Lantern Slide images and information about lantern slide use in the Northwest



64 pages

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About the Magic Lantern
What Type of Images Did They Project?
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Lantern Slides Document Story in 1911
Slides from 1930
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Canadian Pacific Railroad Slide Use
Slides of Sedro-Wooley
Slides of the Dream Theatre Sedro-Woolley
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Local Sedro-Woolly Artist Created Slide Art
Slide Art Created by Richard Odlin
Sedro-Woolley Moral Presentation
Photographer that Created Moral Slide Show
Slide Images of Washington State Parks
Advertising Slides Promote Kent Business
Lantern Slide Users of Today
Knights of Pythias
Slide Images Display Northwest History
Founders of the Society
Contributors

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Both books are 9.5" x 8"

Limited Quantity Available

Price:

1 Book $10 + shipping of $7.25

2 Books $20 + shipping of $7.25

Contact Larry at: designerlc@comcast.net Payment to Ron Easterday-Treasurer, Magic Lantern Society, upon payment books will be shipped.

Editorial

Welcome to Volume 32 No. 4 of the Gazette, and we hope you will find something of interest among its varied content.

The Siege of Paris and the magic lantern seems an unlikely combination, but Dan Sherman has given us a most interesting article on this subject. At this time of lock-downs and travel restrictions we feel for those poor citizens and their need for communication with the outside world. Dan has pointed out that those who would like information on solar and oxyhydrogen microscopes can find it in the Magic Lantern Gazette Volume 29 No 2/3 of 2017 – for those who do not have a copy to hand, it can be found online at the San Diego State University Library site at

https://library.sdsu.edu/scua/digital/resources/magic-lantern-pubs/gazette

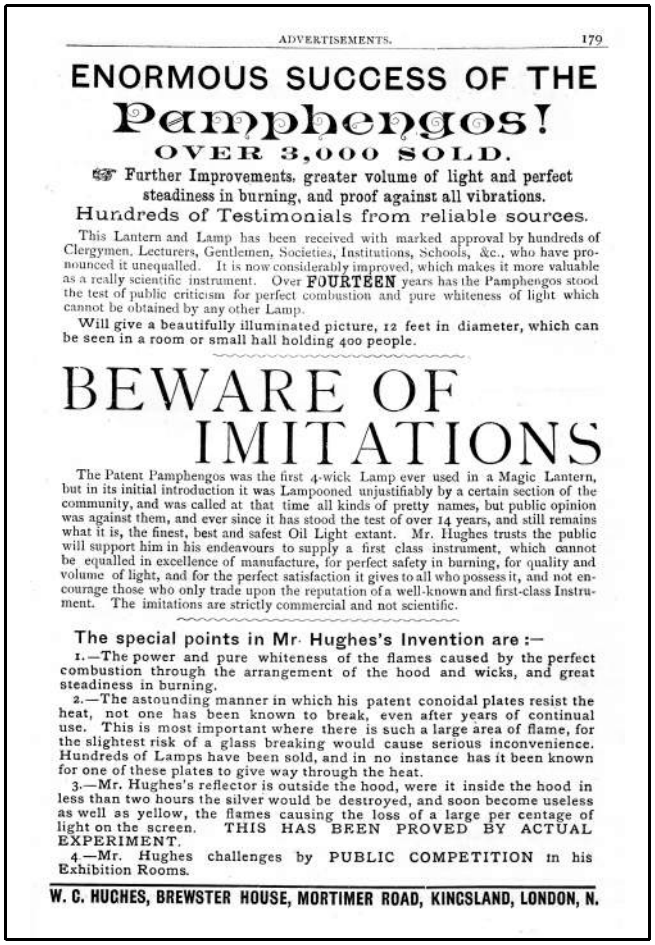
where issues of the Gazette from 1989 on are located.

As we witness the gradual demise of Sears, Roebuck, it is interesting to reflect on that firm's importance to the communities of earlier years. Who can forget the excitement of the Christmas 'wish list' catalogues? Similar to Amazon today… The Sears, Roebuck contribution to the magic lantern world is detailed here by Larry Cederblom. 'Buy the kit and make a fortune' etc. Obviously an emphasis was placed on shows for children – birthday and Christmas parties could be very lucrative!

And what could be more entertaining for this age group than the Disney Mickey Mouse slides?

We were wandering around a huge antiques fair in Britain some years ago, not focusing on anything in particular, apart from the weather that is (yes, it was raining), when we spotted what looked like a battered old battery flashlight. Then we soon noticed some 'children's size' slides in boxes, with Mickey Mouse emblems. Looking more closely, we realised there was a whole package of projector, slides in original boxes, readings and even a small rigid screen. Having never seen anything quite like it before we agreed a price and purchased. How much safer parents must have felt letting children have their own lantern shows with this equipment rather than providing their offspring with cans of kerosene and matches to entertain themselves with their magic lanterns!

We continue to be grateful for Terry Borton's Tips. The advertising blurb from the Entertainment Supply Company stated that '…big returns' were possible and 'anyone can do it', but experience shows that this is not usually quite true! If anything can go wrong it usually does and with Terry's guidance hopefully we will be more prepared!



ADVERTISEMENTS. 179

ENORMOUS SUCCESS OF THE

Pamphengos!

OVER 3,000 SOLD.

☞ Further Improvements, greater volume of light and perfect steadiness in burning, and proof against all vibrations.

Hundreds of Testimonials from reliable sources.

This Lantern and Lamp has been received with marked approval by hundreds of Clergymen, Lecturers, Gentlemen, Societies, Institutions, Schools, &c., who have pronounced it unequalled. It is now considerably improved, which makes it more valuable as a really scientific instrument. Over FOURTEEN years has the Pamphengos stood the test of public criticism for perfect combustion and pure whiteness of light which cannot be obtained by any other Lamp.

Will give a beautifully illuminated picture, 12 feet in diameter, which can be seen in a room or small hall holding 400 people.

BEWARE OF IMITATIONS

The Patent Pamphengos was the first 4-wick Lamp ever used in a Magic Lantern, but in its initial introduction it was Lampooned unjustifiably by a certain section of the community, and was called at that time all kinds of pretty names, but public opinion was against them, and ever since it has stood the test of over 14 years, and still remains what it is, the finest, best and safest Oil Light extant. Mr. Hughes trusts the public will support him in his endeavours to supply a first class instrument, which cannot be equalled in excellence of manufacture, for perfect safety in burning, for quality and volume of light, and for the perfect satisfaction it gives to all who possess it, and not encourage those who only trade upon the reputation of a well-known and first-class Instrument. The imitations are strictly commercial and not scientific.

The special points in Mr. Hughes's Invention are:—

1.—The power and pure whiteness of the flames caused by the perfect combustion through the arrangement of the hood and wicks, and great steadiness in burning.

2.—The astounding manner in which his patent conoidal plates resist the heat, not one has been known to break, even after years of continual use. This is most important where there is such a large area of flame, for the slightest risk of a glass breaking would cause serious inconvenience. Hundreds of Lamps have been sold, and in no instance has it been known for one of these plates to give way through the heat.

3.—Mr. Hughes's reflector is outside the hood, were it inside the hood in less than two hours the silver would be destroyed, and soon become useless as well as yellow, the flames causing the loss of a large per centage of light on the screen. THIS HAS BREN PROVED BY ACTUAL EXPERIMENT.

4.—Mr. Hughes challenges by PUBLIC COMPETITION in his Exhibition Rooms.

W. C. HUCHES, BREWSTER HOUSE, MORTIMER ROAD, KINCSLAND, LONDON, N.

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President's Message

Last year was a quiet one for activity at the Magic Lantern Society of the US and Canada. Like organizations all over the world, the COVID-19 pandemic brought changes that none of us expected. It now looks like we're in for months of the same before we can transition to a post-pandemic existence.

Our postponed 2020 convention is now a postponed 2021 convention. The current plan has us aiming for a late summer/early fall 2022 convention in Cleveland.

In the meantime, our activities will continue to be via print and online media. The ePublication continues to provide members with monthly news and updates, while the Magic Lantern Gazette and the Research Supplement provide additional news, features and scholarship for members.

While the Society membership is stable, our Facebook page

(https://www.facebook.com/groups/www.magiclanternsociety.org)

continues to grow. Since the last edition of the Gazette we've added 80 new members, a 17 percent increase from the fall.

Thanks go to all of our members who are contributing new images and information to each of our outreach efforts, and especially to those who are able to answer questions in the ePublication, Gazette, and Facebook pages.

The Northwest members of the Society have started meeting periodically by Zoom, and will be encouraging others to join us for discussion and sharing of information. We're looking for possible presenters – if you'd like to make a 15-20 minute presentation at a future meeting, please let me know at briandrogers@gmail.com. If there's enough interest, we will consider opening the presentations up to a wider audience in order to encourage others to join us in our passion for the Magic Lantern.

Best wishes to all for safety and health until we meet again.

Brian Rogers

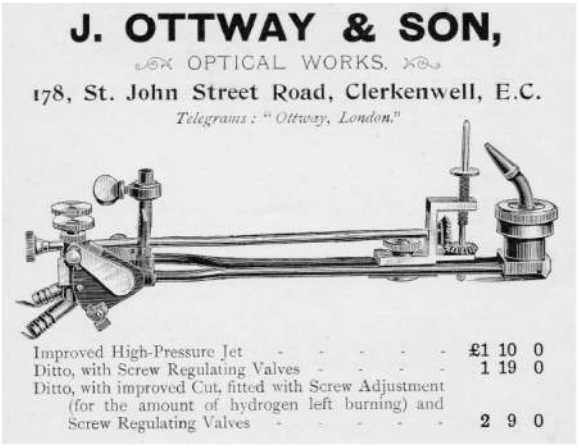
President

2020 MLS of the US and Canada Treasurer's Report

2020 ended on a positive year financially for our Society. We continue to gain new members and dues exceed expenses by a modest amount, maintaining our financial health.

Our Society continues on a solid financial base built upon positive financial cash flow most years, past convention surpluses, and member donations. Thank you for all that contributed with your membership dues, donations, and volunteer hours.

Respectively submitted, Ron Easterday, acting Treasurer.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Magic Lantern Society of the United States and Canada
Annual Financial Report
January 1, 2020 through December 31, 2020

CLOSING BALANCE PRIOR ANNUAL REPORT

	Operating Balance January 1, 2019	$ 33,868.54	
	Research Award Fund balance held in Checking	$ 106.40	
	Total Cash Balance January 1, 2019		**$ 33,974.94**

INCOME

	2020 Membership Dues Paid in 2020 - Note 1	$ 1,909.47	
	2021 Membership Dues Paid in 2020 - Note 1	$ 4,544.88	
	Gazette Sales - Hard Copy	$-	
	Group NW Book net Sales in 2020 post 2018 Convention	$ 35.31	
	Electronic Files Sales-Gazette and Index CD/DVD	$-	
	Donations - Note 2	$ 201.95	
	Interest	$-	
	Subtotal Income		**$ 6,691.61**

2020 CONVENTION - INCOME AND EXPENSES

	Net 2020 Convention Income in 2020	$ 3,922.70	
	Net 2020 Convention Refunds in 2020	$ (3,623.60)	
	Subtotal Convention - Note 3		**$ 299.10**

OPERATING EXPENSES

Administration	Postage - Note 4	$ (51.30)	
	Supplies - Note 4	$ (9.80)	
	501(3)(c) application/legal expenses - Note 5	$	
	Subtotal Administration	**$ (61.10)**	
Electronic Files - Gazette and Index	CD/DVD Electronic File Postage	$	
	CD/DVD Electronic File Supplies	$	
	Total Electronic files - Gazette and Index	$	
Membership Directory	Postage	$	
	Printing	$	
	Supplies	$	
	Subtotal Directory	**$**	
Gazette - 5 Issues - Note 6	Postage	$ (2,200.74)	
	Printing	$ (3,120.64)	
	Supplies	$ (55.28)	
	Subtotal Gazette	**$ (5,376.66)**	
Membership	Awards/Memorials	$	
	Officer Election Ballot - Printing	$	
	Officer Election Ballot - Mailing	$	
	New Member Welcome Postage	$	
	New Member Welcome Supplies	$	
	Renewal Member Postage	$	
	Renewal Member Printing	$	
	Renewal Member Supplies	$	
	Subtotal Membership	**$**	
Publicity	MLS Flyer Printing	$	
	MLS Flyer Postage	$	
	Subtotal Publicity	**$**	
Website	IpowerPro Hosting fee 2020-2021	$ (179.40)	
	Network Solutions domain registration 2020-2021	$ (43.59)	
	Subtotal Website		**$ (222.99)**
	Subtotal Operating Expenses		**$ (5,660.75)**

Total Balance December 31, 2020 - All Accounts	**$ 35,304.90**
Research Award Fund balance held in Checking Account	**$ 106.40**
Net Operating Balance December 31, 2020	**$ 35,198.50**

NOTES

General: All funds held in traditional checking accounts at Bank of America.

1. Dues Income listed above is Net Income and does not include PayPal service charges.
2. Donations: Net of cash member donations and shipping costs for donated items.
3. Net convention income in 2020 - convention deposit of $ 300 paid in 2019 = net loss of $ 0.90 due to PayPal fee differences in refunds.
4. Envelopes & postage to mail hard copies of ePub to members w/o email accounts and general postage.
5. MLS of US and Canada has not yet applied for non-profit status. Donations remain non tax deductible.
6. Five Issues: Vol 31, No. 3 & 4; Vol 32, No. 1, 2, & 3.

Note: starting Vol 32 Gazette supplies costs included in printing costs.

Respectfully submitted, Ron Easterday, Treasurer, January 25, 2021

Ensign Ltd., and Mickey Mouse

by Lesley Evans

Picture 1: Standard 3 1/4" square format with original box and reading

The **George Houghton Company**, which was founded in 1836 in London, had been specializing in the manufacture of optical devices for almost a century. In 1915 it amalgamated with **W Butcher and Sons,** also of London and manufacturers of the **Primus** range of lanterns and slides, to form the **Houghton-Butcher Manufacturing Company Ltd,** to provide joint manufacturing facilities. It became a formal merger in 1926 and in 1930 they created **Ensign Ltd.**

The firm decided to launch a series of Disney magic lantern sets under the Ensign Ltd. brand soon after 1930. The magic lantern slide sets were often sold in combination with a special lantern projector but were also sold separately. At least four different types of magic-lantern-projector-plus-slides kits were sold by Ensign before the Second World War.

The slides were divided into several categories: the first series was composed of 11 square sets in black and white, with Mickey Mouse playing the leading part.

Sets of square black and white Mickey Mouse slides (eight slides per box, 3 ¼" square). The sets

Picture 2: The image is printed on transparency film

are marked J/A to J/L. (J/I does not exist.)

J/A - Pioneer Days
J/B - Traffic Trouble
J/C - The Gorilla Mystery
J/D - The Cactus Kid
J/E - The Birthday Party
J/F - The Castaway
J/G - The Delivery Boy

J/H - The Moose Hunt
J/J - Mickey Steps Out
J/K - Fishin' Around
J/L - The Fire Fighters

Those stories, based on the book 'Mickey Mouse Illustrated Movie Stories' released by Dean & Son Ltd., were later reused for a second series of 11 sets in black and white, this time in a rectangular format.

Pictures 4 & 5: Toy slides

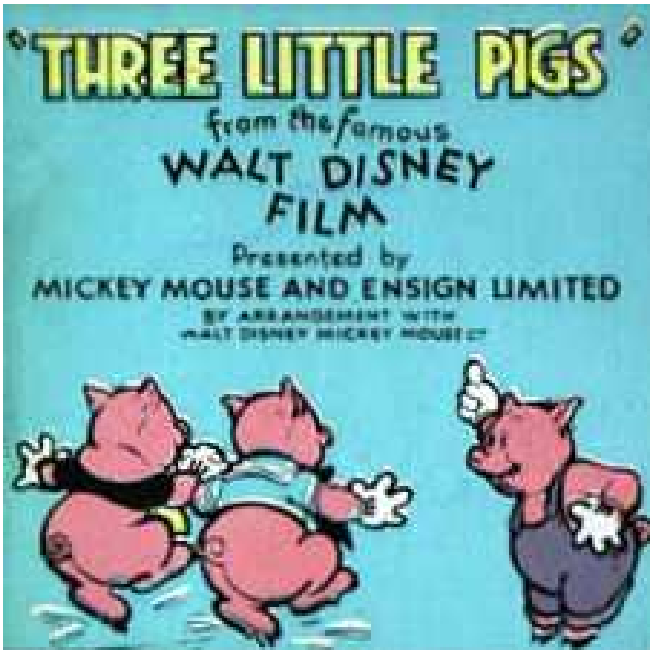
Sets of rectangular black and white Mickey Mouse slides (two slides per box, size 5 ¼" x 1 ½"). The sets are marked T/A to T/L. (T/I does not exist.)

T/A - Pioneer Days
T/B - Traffic Trouble
T/C - The Gorilla Mystery
T/D - The Cactus Kid
T/E - The Birthday Party
T/F - The Castaway
T/G - The Delivery Boy
J/H - The Moose Hunt
T/J - Mickey Steps Out
T/K - Fishin' Around
T/L - The Fire Fighters

THREE LITTLE PIGS
LANTERN SLIDE READING
THE OLD STORY AS TOLD IN THE
FAMOUS WALT DISNEY FILM
Produced in Coloured Lantern Slides by
Ensign, Limited - High Holborn - London
By arrangement with Walt Disney Mickey Mouse, Ltd.

Picture 6: The reading for Three Little Pigs

In 1933 Ensign released a series of twenty-four '3 Little Pigs' 3 ¼" square slides that probably marked the first creation of a colour Disney slide set by Ensign and was to be followed by dozens more. These slides were rectangular and based on Mickey Mouse and other well known Disney characters.



Small sets of rectangular colour slides (two slides per box).

Mickey Crusoe
Mickey Mouse in Pigmy Land
Mickey Mouse in Giant Land
Mickey's Express Delivery
Donald Duck in an Alpine Adventure
Policeman Donald
Pluto on Ice
Night before Christmas
Santa's Workshop
The Pied Piper
The Big Bad Wolf and Little Red Riding Hood
Snow White and the Seven Dwarfs (3 parts)
Pinocchio (3 parts)

Medium sets of rectangular color slides (4 slides per box).

The Pied Piper
The Big Bad Wolf and Little Red Riding Hood

Big sets of rectangular color slides (6 slides per box).

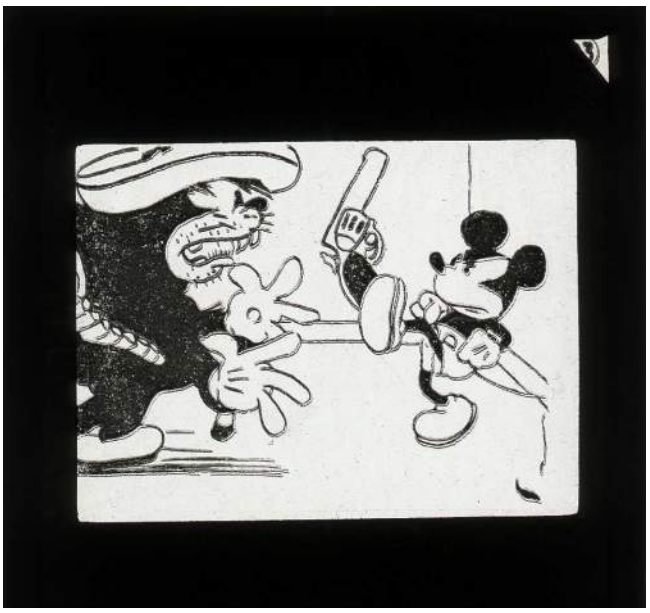
Three Little Pigs
Snow White and the Seven Dwarfs
Pinocchio

Picture 7: The projector that was supplied with some of the toy slide sets could be used as a flash light...

Picture 8: ...or a lantern slide projector

In September 1940, the offices of Ensign Ltd. were destroyed in a bombardment and within a few weeks Ensign Ltd. was completely wound up. Its remaining stock was sold to Johnson & Sons of Hendon, a large camera specialist firm, who produced at least one more Disney magic lantern set after the war.

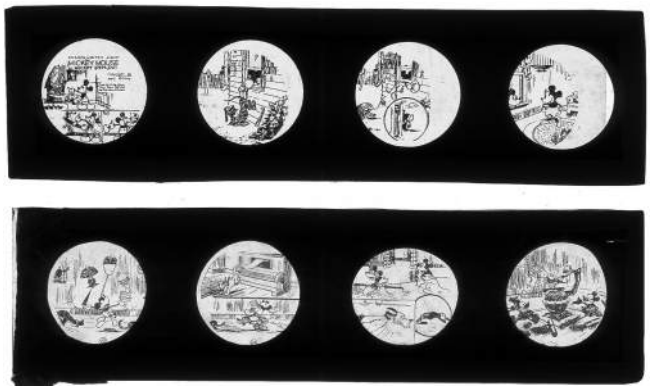
Although the magic lantern slides and lanterns were



Picture 9: The slide images were printed on to a transparent film material which was sandwiched between the usual pair of glasses in the 3 1/4" slides and printed directly on to the glass on the toy size slides.

by far the most successful Disney items Ensign Ltd produced in the '30s, the company also launched a lot of other products, like a Mickey Mouse camera outfit, several 'Silly Symphonies' 16mm films, filmstrips, and even a little musical toy which was intended to accompany the film projection shows.

We would like to thank Henc de Roo of the de Luikerwaal web site for his kind permission in allowing us to use information and illustrations from his amazing site, including the color image of the Three Little Pigs. You can visit it here: www.luikerwaal.com/indexx_uk.htm where there is a lot more information on Mickey and his various slide sets and lanterns.



Toy slides of 'Mickey Steps Out', size 5 1/2" x 1 1/2"

The Magic Lantern and The Franco-Prussian War
The Siege of Paris, 1870 - 71

by Daniel Sherman

Throughout history the brutality and oppression of war has inspired courageous acts of valor. Beyond daring gallantry, the events of war can give rise to strategies and solutions central to alleviating hardship and suffering caused by war. Such was a proposal that brought together a unique form of photography and a specialized magic lantern[1] that helped stabilize a city's sanity during an unfortunate, contrived war. During the Franco-Prussian War of 1870-71, Prussian / German military forces surrounded Paris cutting off communications and travel, isolating Paris from the outside world. Various plans were devised and implemented during this *Siege of Paris* in an effort to maintain contact with the rest of France and the outside world, most notably the use of balloons and carrier-pigeons, but also dogs, diplomats, red-cross workers, and boules de moulins (fig.13)[2]. In the latter stages of this adverse situation – December 1870 through early February 1871 – René Dagron's acclaimed micro-photography and the *Duboscq Megascope*, a specialized type of magic lantern (see endnote 1) used to project microscopic images, played a vital role in both private and official government communications.

The Franco-Prussian War and the prevailing political climate leading to this war:

The most immediate, underlying justification (excuse) for this war involved a joint collaboration between Juan Prim and Otto von Bismarck and their effort to install Prince Leopold of Hohenzollern-Sigmaringen on the Spanish throne following Spain's exile of Queen Isabella II. *Juan Prim Y Prats, 1st Count of Reus*, was a principal military and political figure during the Spanish Revolution of 1868 that deposed Queen Isabella II, resulting in his becoming the most powerful figure in the Spanish government. *Prussian Chancellor Otto von Bismarck*, with aspirations of uniting Prussia with the other German States into a unified German Empire, was a key figure in the manipulation of events that precipitated this war.

Prince Leopold of Hohenzollern-Sigmaringen (of the lineage of Prussia royalty) accepted Juan Prim and Bismarck's nomination to the Spanish throne. Napoléon III of France (fig.1), harboring suspicions of a possible joint effort directed against him by an alliance of Prussia and Spain exerted diplomatic pressure in an attempt to halt Leopold's ascension to the throne.

On 12 July 1870 Prince Leopold withdrew his candidacy. On 13 July 1870 the French ambassador to Prussia, Vincent Benedetti, met with Wilhelm I, King of Prussia, requesting assurance that a member of the House of Hohenzollern never again be named a candidate for the Spanish throne; Wilhelm declined his appeal. On 14 July 1870, Bismarck published an *edited* version of Wilhelm's statement making it appear that Wilhelm and Benedetti were less than civil towards one another at their meeting. To Bismarck's satisfaction, this move made it appear that Wilhelm maintained a degree of animosity towards France, infuriating Napoléon III – on 19 July 1870 Napoléon III declared war on Prussia.

Figure 1: *Courtesy Library of Congress, Prints and Photographs Division – Stereograph of Napoléon III, Taken on his 50th birthday, 20 April 1858.*

Bismarck may have *entirely* engineered this happening in an effort to entice Napoléon III into declaring war, making France the aggressor and bringing the German States into a unified effort against France, thus supporting his objective of creating a unified German Empire. Or, he may simply have seized-upon a prime opportunity and further manipulated existing circumstances to achieve his objectives. Whatever the truth may be, France entered into war due to the actions of Bismarck over what most outside onlookers saw as having little provocation. Napoléon III had limit reason for starting this war and even less preparation. There was some readiness on the part of his military, but it involved Austro-Hungarian aid which did not materialize. The Prussian army mobilized far more rapidly than expected. Prussia's support from the other German States was stronger than anticipated. On 2 September 1870, following a progression of military defeats, Emperor Napoléon III was taken prisoner along with an army of more than 100,000 French troops at the Battle of Sedan (fig.2).

The surrender of the Emperor and his Army signaled the fall of the Second Empire of France. The Third Republic of France was proclaimed on 4 September 1870, with a new Provincial Government established at Tours that continued the war against Prussian / German forces. Napoléon III had seriously miscalculated, and Bismarck was securing his

Figure 2. *Magic Lantern slide published by Newton & Co. Makers – 3 Fleet Street, London, ca 1890:* ***Bold black lines*** *on map are approximate placement of German guns; see accompanying narrative:*

"Battle of Sedan*, (Sept. 1, 1870), decisive defeat of the French army in the Franco-Prussian war… it was fought at the French border fortress of Sedan on the Meuse River, between 120,000 French troops under Marsal Mac-Mahon and more than 200,000 German troops under General Helmuth von Moltke… there was mounting chaos as the French were hammered by more than 400 German guns mounted in a semicircle on the high ground around the town (fig.2 above)." *Late the afternoon of 1 September 1870 General Reille delivered a letter of surrender to King Wilhelm l prepared by, or under the direction of, Napoléon III. The next day, 2 September 1870, Napoléon III appeared in person before King Wilhelm l and surrendered. *Quoted, in-brief, from: Encyclopedia Britannica https://www.britannica.com/event/Battle-of-Sedan*

unified German Empire. On 19 September 1870 Prussian / German Forces surrounded and cut off Paris from the rest of France and the outside world; the *Siege of Paris* had begun.

A besieged Paris delivers messages to the Outside World via Balloon Mail:

Balloons used during the Siege of Paris were not *Hot-Air Balloons*, despite that reference being given by many sources – they were *Gas-Filled Balloons*, supplied with coal-gas, a mixture of approximately 50% hydrogen, 35% methane, 10% carbon monoxide; they were lighter-than-air, highly inflammable and quite explosive.

Upon securing control of movement in and out of Paris, German Forces promptly set about disabling the telegraph system, cutting off communications between Paris and the

Figure 3: *Image and narrative,* **"Illustrations of the War,"** *from: London Illustrated News, 31 December 1870, p 671"We continue to receive, by balloon post, sketches from our Artist in Paris [fig.3] … At the present time, the departure of balloons from Paris not only takes place at night, but the day fixed on is kept concealed from all save those immediately concerned, in order to avoid, as far as possible, the chances of its being communicated to the enemy, and thereby exposing the aeronauts and their precious freight to the fiery rockets and other projectiles [fig.6] with which the Germans are prepared to favour them. As in old times, railway stations are still the places from which passengers and letters take their departure for the outside world; for they not only offer large open spaces in which to fill their balloons [pump coal gas into the balloon], but, being situated away from the centre of Paris, there is less risk of these in their ascent coming in contact with buildings. The Engraving [fig. 3] represents the departure of one of these balloons from Gare du Nord at half-past eleven o'clock at night. … The car has been fixed on, the aeronaut and his passengers have already taken their places, the former clad in a light-coloured fur coat, to shield him from the intense cold of the upper regions of the atmosphere…"*

outside world; Paris would need to seek other alternatives to connect with those beyond its barricaded perimeter. Balloon couriers (fig.3) were determined to be the most effective means for sending communications outbound; messages traveling inbound to Paris would be more complicated.

Outbound communications began almost immediately; on 23 September 1870 the balloon, *le Neptune*, departed carry-

ing 125 kilos[3] (276 pounds) of mail and a pilot, Jules Durouf. About three hours and fifteen minutes later it touched down in the park of Chateau de Craconville near Evreux, 83 km (52 mi) from Paris. This was within German occupied France, but well outside of the military fortifications surrounding Paris. With his containers of mail in-tow, Durouf was able to catch a train to Tours where the French provincial government was set up in unoccupied territory and delivered his dispatches. Following this success, Eugène Godard designer and manufacturer of gas and hot-air balloons along with French photographer, and accomplished balloonist, Félix Tournachon, better known as Nadar, were pressed into service to construct balloons. Two balloon assembly camps were set up for constructing balloons to establish a regular system for out-going mail; one under the direction of Nadar at the *Gare du Nord* (Station of the North, in Paris), the other under the direction of Godard at the *Gare d'Orleans* (Station on the Paris–Bordeaux railway in city of Orléans). See narrative accompanying figure 3 for details per use of railway stations. These balloons were on a one-way mission; they could carry mail, people and other effects out of Paris, but were unreliable for transporting anything in from the outside world. Ascent and descent of balloons could be managed, but the direction of travel to a precise location could not; balloons were at the mercy of the wind. The goal being to simply land outside of enemy territory, in unoccupied France, Belgium or elsewhere, then travel by train, diligence coach (France equivalent of the stagecoach), or other conventional means to their desired destination.

An extreme example of the lack of precision directional control was the *Ville d' Orleans* launched from Paris the night of 24 November 1870. It was blown severely off course by strong winds and swept out over the North Sea. Come morning, they found themselves in heavy fog and gradually descending. They spotted a large fishing vessel and further descended in an attempt to be rescued by it, but wind and waves rendered this impossible. By now they were so close to the surface of the water that a huge wave crashed over them (fig.4).

They threw several bags of ballast and a 65 kilo (143 pounds) container of mail overboard[4] in an effort to ascend, as they gained altitude, they caught the full effects of hurricane-force winds, they rose rapidly to an extremely cold 5200 meters (17060 ft.), the thermometer read 39 below zero Centigrade (-38.2 degrees Fahrenheit). Eventually, they crossed the North Sea, after descending though heavy cloud cover discovered they were drifting over forested mountains. They opened the balloon's valve releasing some gas, bringing it in for a landing, the pilot jumped out with guide rope in hand, his passenger followed, but entangled his leg in the rope, now minus the weight of the pilot, the balloon lifted off and began dragging his passenger along as it resumed its course. The pilot grabbed the bags attached to the carriage basket in an effort to arrest the balloon's flight, but was unable to succeed. Finally, the entangled leg was disengaged and the two of them, now dangling from a drifting balloon, dropped into snow banks avoiding any real injuries. The balloon sailed off (fig. 5) with the mail, government dispatches, pigeons and all of their provisions.

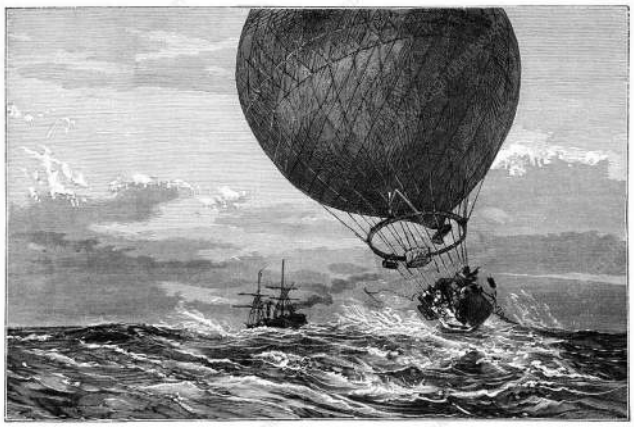


Figure 4: *Artist interpretation of the* Ville d' Orleans *sailing over the North Sea, the morning of 25 Nov 1870, as a wave crashes against its carriage basket.*

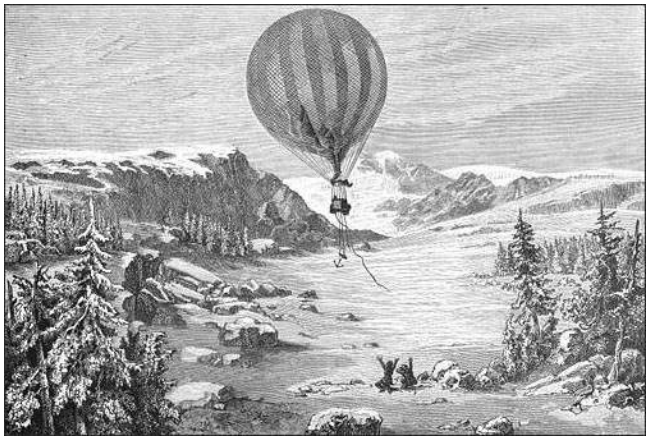


Figure 5: *Artist rendering of the balloon* Ville d' Orleans *sailing over the mountains of Norway, after the pilot, M. Rolier, and his passenger lost control of it on landing, about 2:20 pm the afternoon of 25 November 1870. It was later recovered intact about 80 kilometers (~50 miles) from where they lost control of it.*

Stranded in forested mountains without provisions, they started off through deep snow. In time they came upon a cabin with a collapsed roof containing some hay that was useful for insulating them against a cold and hungry night. Early the next morning they set out; before long they came across the tracks of a horse drawn sledge. Following this evidence of human activity for about an hour, they came upon a cabin half buried in the snow. They entered the cabin, one large room, a hole in the roof formed a chimney, it was unoccupied at present, but live-in clues were

everywhere, including a warm coffee pot. They made a fire to warm themselves – they waited – would the owner of this cabin offer help? Where were they? They truly did not have a clue as to where they were – not even what country they were in! Eventually, voices were heard, they went to the doorway and gave signs of welcome, and in return received a salutation that appeared quite friendly. Two men greeted them, but did not speak a word of French, nor did the two stranded Frenchmen understand their language. Attempts at sign language and picture drawing began, in time they learned they were in Norway, and the Norwegian woodsmen determined from maps and sketches of balloons, etc., that they were from France and an understanding of how they had arrived in Norway. In due time, it became apparent to all that the travelers from France needed to make contact with local authorities and determine what their next move should be. In a horse drawn sleigh they headed for the neighboring village of Silgjord (today known as Seljord) where they found local leaders that understood French. They related the story of their perilous balloon journey and informed the locals of Paris under siege by German forces. From here they traveled to the French consul at Drammen where they learned their wayward balloon and all its contents had been recovered intact. Next, they traveled on to Christiania, today known as Oslo, the Capitol City of Norway, where they telegrammed the French government office in Tours. Arrangements could now be made for their return to France. This balloon odyssey also set a world balloon distance/speed record, ~1300 km (~800 mi) in ~14 hours!

The balloon *Ville de Paris* launched 15 December 1870 with a wind blowing in the direction of Belgium, also fell victim to unpredictable winds. Shortly after departure it was discovered the wind had shifted, now carrying them in the direction of enemy territory. Their balloon, launched at night to prevent enemy forces from seeing them before they gained altitude and attempting to shoot them down (see fig.6, also fig.3 narrative), made it difficult to determine where they were or to attempt a landing before daylight.

Come morning the balloon was losing altitude, and in due course, descended into a forest near Nassau, where its basket lodged in the tree tops. They were spotted and confronted by German guards that seized the guide rope hanging from the balloon. One of the passengers climbed out into the tree branches, ready to surrender. The other two not yet ready to abandon ship pitched a sack of sand overboard and cut the guide rope the Germans were pulling on. Now, minus one passenger, a sack of sand and at least 100 pounds of rope, the balloon rose rapidly. As they departed, they were shot at, but it missed. About two hours later they descended into another forest near Wetzar, about 50 miles north of Frankfurt, Germany. In total, three people

***Figure* 6: "Balloons from Paris Passing Over Prussian Lines"** *From:* Harper's Weekly *– 29 October 1870. German canon fire attempting to bring down balloons launched from Paris 7 October 1870 as they passed over the German barricade-line surrounding Paris. One of these balloons departing on October 7th was the* L'Armand-Barbès *carrying Léon Gambetta, minister of the interior, the first official to proclaim the Third Republic of France on 4 September 1870 following the surrender of Napoléon III. This scene is also representative of what occurred 12 November 1870 as the* Niepce *and* Daguerre *crossed over the German barricade-line while leaving Paris.*

were aboard this balloon, a pilot plus two passengers; both passengers ended up as prisoners, the pilot managed to escape, making his way back to Paris; arriving 13 January 1871. Although being taken prisoner is most unfortunate, even more tragic was the fate of three balloons lost at sea, one of which was the *Jacquard* launched 28 November 1870[5]. It went down in the Irish Sea. The pilot, Alexander Prince, was lost, there were no other passengers on board; some mail bags survived washing ashore at Falmouth, England and on the Island of Bryher in the Isles of Scilly. Because of the inability to accurately direct a balloon's line of travel, the alternative for delivering Paris' *incoming* mail, would be via carrier-pigeon.

Pigeons, Microphotography and the Magic Lantern:

"During the war of 1870-1871, when our capital [Paris] was invaded by enemy hordes, photography was able to

shrink the messages of the traveler pigeons, to the point of making them completely invisible to the naked eye. No physicist would have been able to suspect this use of photography, born of the harsh necessities of war." *Les Merveilles de la Photographie*, 2nd edition, 1874, p228, by Gaston Tissandier, himself, a participant in this venture – Translated from French by Bibliothèque nationale de France (National Library of France).

The first balloon to leave Paris, *le Neptune,* carried no pigeons. Two days later on 25 September 1870 *le Ville de Florence* departed Paris with three pigeons; upon landing, they were released without messages; simply returning to their loft, signaling Paris that the balloon had safely crossed over enemy lines. This procedure was promptly modified, and pigeons were fitted with official dispatches before returning. Later, it would be further revised, sending out both official and personal communications. The first dispatch was sent 27 September 1870 arriving in Paris on 1 October 1870. Initially these were hand written in very small script on very thin, light weight paper. Beginning in early October messages were written on paper, photographed, and then printed in a much-reduced form on fine-textured photographic paper. Soon, it was further resolved to print messages on both sides of the paper. Upon arrival in Paris, these miniaturized dispatches could be read through a microscope. In using this photographic method, a greater amount of information could be transmitted on a reduced amount of paper. Later, a letter-press replaced hand-written copy; producing far clearer, more legible results on these compressed, miniature dispatches. The volume of information, per measure of weight a pigeon could carry, had significantly improved since those first messages went out, yet a far more impressive miniaturization technique was about to arrive.

On 12 November 1870 two balloons were prepared for launch, *le Niepce* and *le Daguerre*. They would transport photographer René Dagron, his assistants and a substantial amount photographic equipment and supplies. Shortly after departure, while passing over the fortifications surrounding Paris, heavy German gunfire (fig.6) forced *le Daguerre* to descend. All passengers, photographic apparatus and pigeons were taken captive by German forces. *Le Niepce* managed to avoid this catastrophe as it passed over heavy German fire carrying the pilot, Pugono and four passengers, Dagron and his assistants, Fernique, Poisot, and Gnochi. About one hundred miles further along their journey they were losing altitude, and forced to descend near Vitry-le- Francois, in German held territory. As the balloon landed, the first to arrive were local peasants, they helped load equipment and supplies from the balloon carriage into two carts, they also furnished peasant clothing to dress the crew, disguising them as locals. When German forces arrived, they discovered, and confiscated, one of the carts with its equipment and supplies, the other cart avoided discovery. The Germans mistook the crew members for local peasants, believing the occupants of the balloon had fled the scene. At this point, the party separated, and with the assistance of locals, transported what remained of the equipment and supplies, making their way to the provincial government headquarters at Tours. After a long and complicated journey, Dagron arrived at government headquarters in Tours on 21 November 1870 where he met with M. Gambetta, minister of the interior, and reconnected with the other members of his party.

Dagron had lost a substantial amount of equipment, replacements were unobtainable in Tours. As word of this situation spread, two amateur photographers, Delezenne and Dreux from Bordeaux, provided apparatus somewhat comparable to the lost equipment. Although Dagron was unable to achieve the level of microphotographic reduction he had hoped to obtain, the amount he was able to attain was still very impressive, shrinking the dispatches a full 40 diameters – an overall surface area reduction of 1600 times!

All communications were printed by letter-press on large sheets of paper[6], microphotographed and developed as a collodion negative on a glass plate. The negative was then contact printed as a positive on another glass plate containing a film of collodion prepared with photo-sensitive emulsion, processed and allowed to dry. The fragile film of collodion (also known as a pellicle) containing the microphotograph was carefully stripped from the glass-plate.

"…a film of collodion, which, though weighing less than one grain, [437.5 grains = 1 ounce, 15.4 = 1 gram] contained the matter of several newspapers. Several of these films representing a considerable number of dispatches were rolled up and enclosed in a quill about the size of a tooth-pick." [Photographic Times, December 1876, p270.]

The collodion film / pellicle (fig.7a), about 1.1 inch wide by 1.5 inches in height, containing about 13,000 words and weighing about 0.05 grams, along with other pellicles, was tightly rolled together and inserted into either a crow or goose quill, then secured to one of the pigeon's tail feathers (fig.8). On average each quill contained about 20 collodion pellicles.

Official records of the release of pigeons began on 16 October 1870, from that date through the last release 3 February 1871, pigeons were released on 47 occasions. Numerous pigeons were released at each event; several pigeons would receive the same dispatches in an effort to improve chances of these messages successfully reaching Paris. If Paris did not signal that these dispatches had been received, they would be re-sent at another release. When a

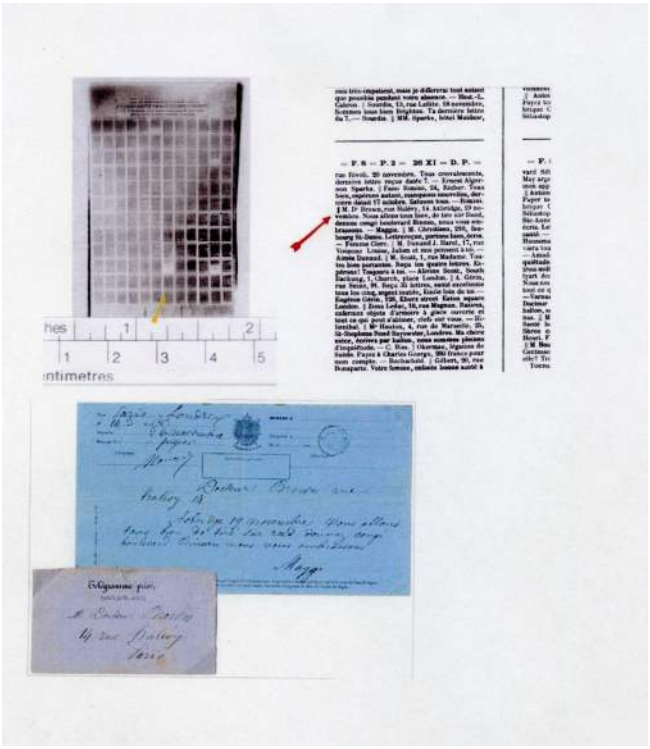


Figure 7: (A) *Pigeongram pellicle (collodion film), yellow arrow points to unit containing Margaret Brown's message.* ***(B)*** *Enlargement of unit designated by the yellow arrow, red arrow points to Margaret Brown's message.* ***(C)*** *Telegram and its envelope, delivered to Mr. Brown in Paris on 12 January 1871 bearing the message transcribed by copyist from the pigeongram projected onto a screen by a Duboscq Megascope. [From:* A Message brought to Paris by Pigeon Post in 1870-71, *by Ashley Lawrence, UK].*

pigeon reached its loft in Paris, the quill was removed, taken to the main Telegraph Office, where it was carefully split open. The contents were placed in water containing a few drops of ammonia; this liquid caused the collodion film to be unrolled and flattened out.

"They were then dried and placed between two plates of glass. It only then remained to lay them on the stage plate of a photo-electric microscope. The preceding engraving [fig. 11] represents one of these interesting meetings for the purpose of transcribing the microscopic despatches [sic]. The image on the film of collodion is there thrown upon a screen by means of a photo-electric apparatus, which is, in fact, a very powerful magic lantern. The almost invisible letters are sufficiently magnified to enable the copyists to reproduce them on paper [fig.7c]" [A History and Handbook of Photography by Gaston Tissandier, translated from French by J. Thompson, London, 1876, p243.]

These highly miniaturized dispatches were the masterpiece of micro-photographer René Dagron. Although, not the actual inventor of microphotography, Dagron was the first to standardize it systematically, and apply for a microfilm

Figure 8: *Detail from an early 1900s trade card demonstrating the method used to secure dispatches to the tail feather of a carrier pigeon during the Siege of Paris.*

patent, 21 June 1859, granted on 29 July 1859; the world's first patent for microphotography. The earliest microphotograph on record, late 1839, is credited to John Benjamin Dancer of Liverpool, England, UK. Dancer was a manufacturer of optical instruments and initially considered his microphotographs as novelties, of no real commercial value. He performed various demonstrations with them in an effort to promote the quality of his microscope and camera lenses. In the early 1850s, after the collodion wet-plate photographic process was introduced, he became involved in commercial production. Various competitors in London and elsewhere in Europe, as well as the Langenheim brothers of Philadelphia in America began copying and creating variations of his work. All microphotography in the 1850s and 1860s, other than Dagron's, required a microscope or hand-held magnifying glass to observe them. Dagron used a Stanhope lens, a simple one-piece microscope invented by Charles, third Earl of Stanhope. He modified this lens for mounting microscopic pictures inside jewelry that could be viewed through a small opening when held to the light; they became known as *Stanhopes*. These micro-peep viewers were embedded in letter openers, needle cases, thimbles, pens, pocket knives, cigarette and cigar holders, tobacco pipes, and a wide variety of other jewelry and novelties and were produced primarily for the Parisian souvenir market. Unlike other microphotographic products of that era, requiring an external viewer (microscope or hand lens), Dagron designed his viewer and image as a single, self-contained unit. It was from this principle that he developed his ideas leading to the collodion microphotographic film placed in a magic lantern type glass slide that could be projected and viewed on a screen without requiring a secondary external viewing apparatus.

Pigeons, Microphotography, the Magic Lantern and the Morale of Paris:

Most likely, 400+ pigeons (official numbers vary) were air-lifted out of Paris by balloon. Not all arrived at their chosen destination; some balloons, along with the cargo, fell into enemy hands. Of the pigeons completing their outward-bound journey, 302 were later released for return to Paris, with messages attached. Pigeons released in the early stages of the Pigeon Mail Service were more successful in completing their return trip to Paris than those released later. As severe winter weather set in, pigeon arrivals became very unreliable. Pigeons were also subject to attack by birds of prey, hawks and falcons, some of which had been added to the existing wild population by German Forces.

"On 59 occasions, they [pigeons] did succeed in getting back to their lofts… they carried official dispatches of great importance as well as an estimated 95,000 private messages which went far to keep up the morale of the besieged Parisians. Their achievement was commemorated in the monument by Bartholdi [designer of the Statue of Liberty] and Rubin at the Porte des Ternes in Paris [fig. 12] which was unveiled on 28th January 1906 and melted down by the Germans in 1944; around the central representation of a balloon were four pedestals each bearing a pair of bronze pigeons": [The Pigeon Post into Paris 1870-1871 by J.D. Hayhurst, 1970.]

The illustrations shown in figures 7A and 7B are from an actual collodion film located in the Postal Museum, Paris, France. During November 2001 Ashley Lawrence examined records at the archives of *Musée de la Poste* (Postal Museum), Paris in search of a message sent by Margaret Binfield Brown from London to her husband in Paris via Pigeon Post during the siege of Paris.

"[Postal] records show that [Margaret Brown's letter was among] 64 such messages sent from London to France on 19th November. The letters were taken by train to Dover, crossed the Channel by steamer to Calais and thence by rail via Amiens to the French postal authorities in Tours. Mrs. Brown's message was recorded as having been received in Tours on 26th November. The private messages were not processed immediately. Instead, they were taken to Bordeaux, when the Germans forced the Delegation to retreat on 10th December.

M. de Lafollye, who supervised the operation of the Pigeon Post service, noted the various stages of the process: registration of the message; delivery to the printers for typesetting of some 3,000 messages onto a single page; assembling of pages into blocks of nine, twelve or sixteen, ready to be photographed … It was then necessary to await suitable weather conditions for the release of the pigeon.

The messages from England were set up in type and microphotographed in Bordeaux on 2nd January 1871. The records show that the pigeon carrying these messages was released at Saint-Pierre-des-Corps (Indre-et-Loire) on the morning of 8th January and arrived in Paris that same evening … On 12th January, the microfilm was projected by Duboscq Megascope at the Grand Hotel in Paris, and more than 30,000 individual private messages were transcribed onto blue telegram forms [fig.7c] … The telegram containing Mrs. Brown's message, marked "*Pour Paris de Londres, Déposé le 26 novembre, Reçu par voie pigeon*" was duly postmarked and delivered to Mr. Brown later that day. [*A Message brought to Paris by Pigeon Post in 1870-71*, by Ashley Lawrence, UK]

Although many pigeons fell victim to hostile conditions on their return trip to Paris, those that succeeded contributed immeasurably to the morale of Paris, bringing those microphotographed messages from friends, associates and family to be processed, projected by the Duboscq Megascope, and then transcribed for delivery. Contact from family members and the outside world proved invaluable in helping to stabilize the sanity and morale of an uncertain Paris.

Time-Line of the Siege of Paris:

19 September 1870: Paris confined by enemy forces and subjected to hostile, oppressive actions.

28 January 1871: signing of an armistice ended all hostilities; be that as it may, communications and travel remained restricted well into February 1871.

26 February 1871: preliminary peace treaty, *Treaty of Versailles 1871* signed, supporting the armistice and effectively ending the war.

10 May 1871: A definitive, final treaty signed– *The Treaty of Frankfurt am Main*.

References:

Exhibit of Balloon Mail – extensive collection of mail that crossed enemy lines during the Siege of Paris, plus a few from the siege of Metz, Belfort, etc. Each item has a brief account of what it is and identifies which balloon carried it out of Paris. Also, mail carried by Line-crossers, Diplomats and those sent by Boules de Moulins (see fig.13 and endnote 2), one of which was recovered 6 August 1968, more than 97 years after submersion in the Seine River! *https://www.rfrajola.com/Philex99/Philex99.pdf*

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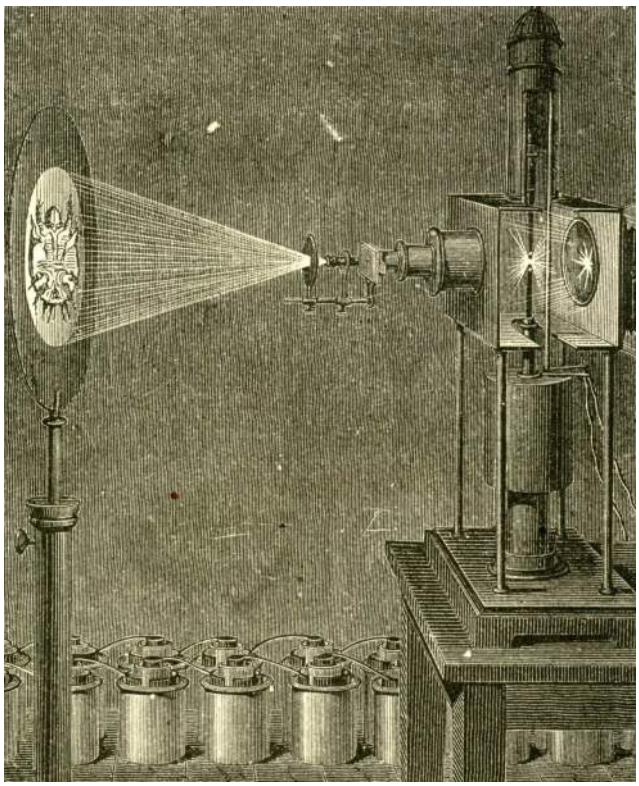

Figure 9: *Duboscq Megascope, or photoelectric microscope, with side panel "cutaway" exposing the interior elements, same type of projector as figure 11. Illuminated by an electric arc lamp, invented by Humphry Davy during the first decade of the 19th century, exact date uncertain, but likely 1807 or 1809. This arc-lamp preceded the Edison electric light bulb, precursor of the modern-day incandescent light bulb, by at least 70 years. To create the high intensity arc produced here, first connect two adjustable retort-carbon point electrodes to voltaic batteries (on floor), then bring the two points into contact, they immediately become red-hot, now separate them a short distance apart and a brilliant electrical arc will extent between them; as the carbon points burn down reducing their length, the exact distance of separation between the two points is automatically adjusted by a regulator controlled by successive electro-magnetic movements, see fig.10. A reflector situated at the back of the instrument concentrates and passes light through a second system of converging lenses, which then projects a highly magnified image onto the screen. Voltaic (galvanic) batteries, generate electricity through chemical reaction. The photoelectric microscope described here was first used in the 1840's. It was preceded by two other forms of projection microscopes, the Solar Microscope arriving in the 1730's and the Oxyhydrogen Microscope, also known as Hydro-Oxygen Microscope was first demonstrated by George Birkbeck in 1825. For information on the solar and oxyhydrogen microscopes – Magic Lantern Gazette, A Journal of Research, Vol. 29, No. 2/3, 2017; for those new to the Society, issues of the Gazette from 1989 – 2018 are available online at San Diego State University Library https://library.sdsu.edu/scua/digital/resources/magic-lantern-pubs/gazette*

(Paris Postal Museum), contains numerous facsimile documents relating to this mail service.

https://www.cix.co.uk/~mhayhurst/jdhayhurst/pigeon/pigeon.html

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https://books.google.com.fj/books?id=lWo9AAAAYAAJ&printsec=frontcover&source=gbs_vpt_read#v=onepage&q&f=false (microscopic dispatches, Siege of Paris pp 235-248)

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Volume One:
https://books.google.com/books/about/Paris_in_Peril.html?id=AwcxAQAAIAAJ

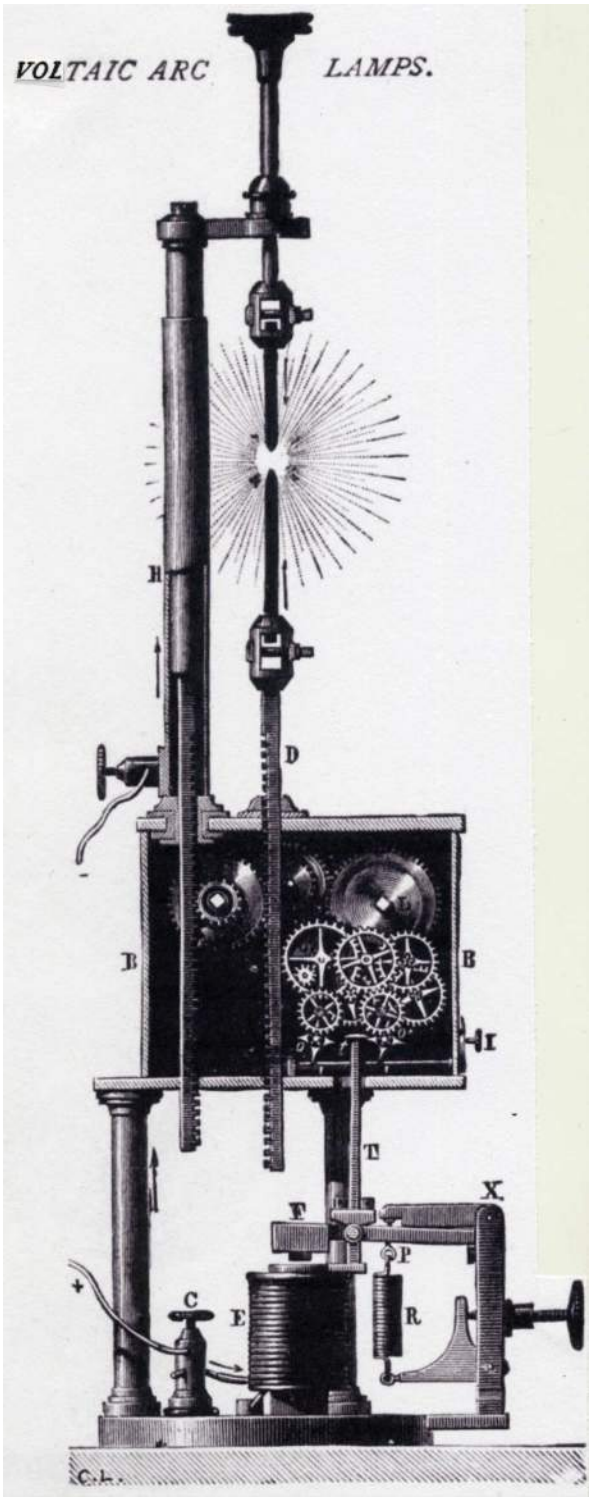

Figure 10: Voltaic Arc Lamp, *the core component of the Duboscq Megascope, displaying the light source and its adjustable electromagnetic regulator system consisting of a series of cogwheels driven by the electromagnet (see fig.9 for additional details). Invented by Léon Foucault, with improvements added by Jules Duboscq. When fitted with the proper optical projection lenses, reflector, etc. (figures 9 and 11) it is used to magnify and project microscopic images onto a screen; manufactured and sold by Jules Duboscq.*

1350 PARIS. — Monument élevé à la Mémoire des Aéronautes morts pendant le Siège de Paris, par Bartholdi (sculpteur-architecte)
ND Phot

Figure 12: *French postcard, postmarked 1906, displaying photo of bronze monument in Paris with bronze cast of pigeon circling a balloon as it rises above a group of aeronauts. Four auxiliary pedestals are placed around the monument, each bearing a pair of bronze pigeons. In 1944, during the German occupation of France in World War II, the German's destroyed this memorial and melted down the bronze fixtures for use in military applications.*

Volume Two:
https://books.google.com/books/about/Paris_in_Peril.html?id=sXBqtkEk3JcC
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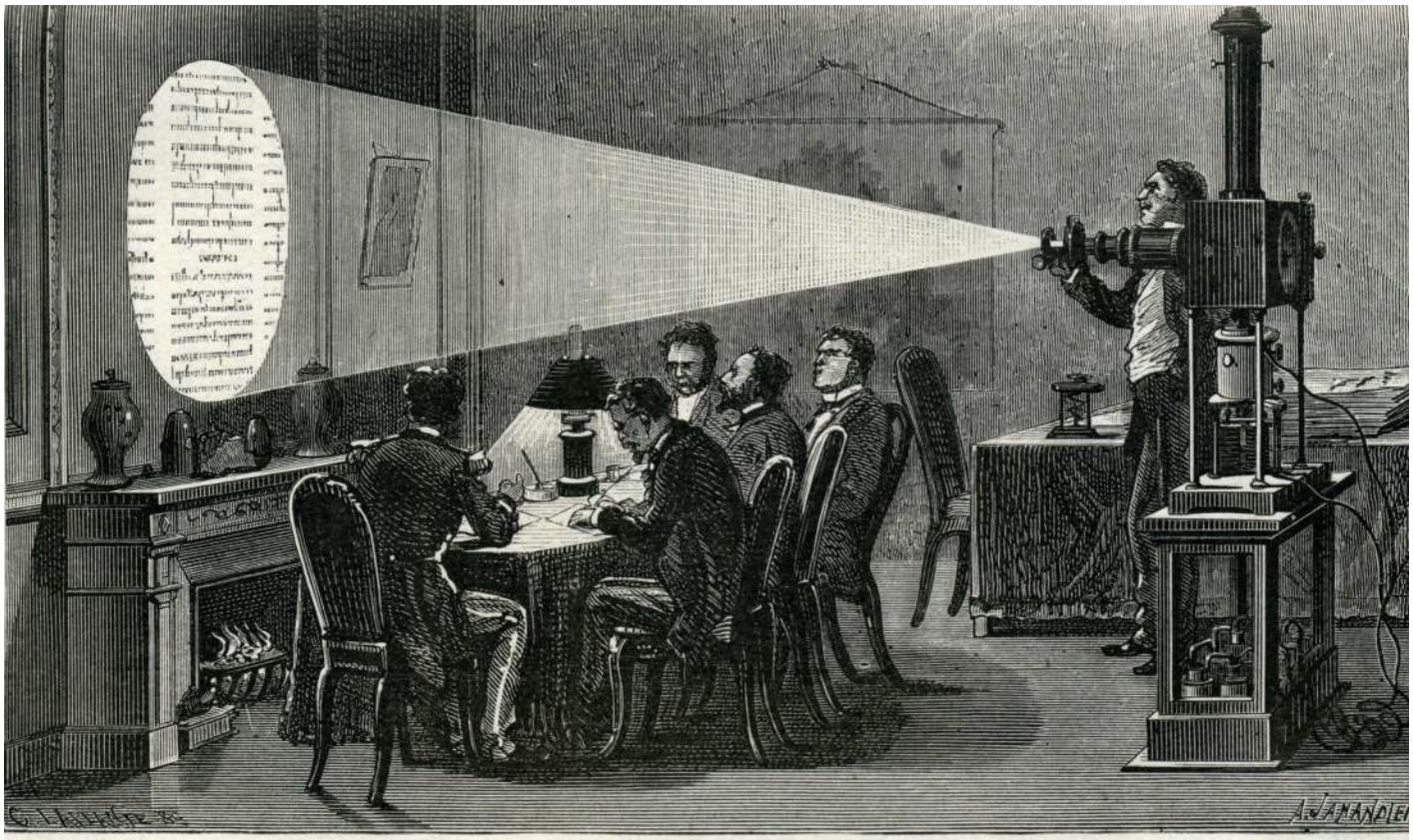


Fig. 57. — Agrandissement des dépêches microscopiques pendant le siége de Paris.

Figure 11: The Duboscq Megascope. *From:* Les Merveilles de La Photographie, by Gaston Tissandier, 2nd Edition, 1874, p233. *An assembly gathered for the purpose of transcribing microscopic dispatches received via Pigeon Post during the Franco-Prussian war of 1870-71. Illuminated by a powerful arc-lamp, and highly magnified by the lenses of the Duboscq Megascope; these copyists were able to reproduce on paper (*fig.7c*) the messages projected onto the screen. Prior to the introduction of Dagron's microphotographic techniques, the earlier, less compressed forms of microphotographed dispatches were printed on photographic paper and required a microscope or powerful hand-held magnifying glass to view them.*

"This mode of reading being very slow, recourse was had, eventually, to M. Duboscq's megascope, the electric light of which projected the films of collodion on to a large screen, so that four transcribers could work at once on different parts of the dispatch-sheet; each square of which, when perfected by M. Dagron, contained some 1600 messages."*

Dagron's method of miniaturization not only permitted considerably more information to be printed per amount of available space, but supported the use of lantern projection, allowing multiple copyists to simultaneously transcribe these messages.

* ***Paris in Peril*****,** Vol. 2, p147, 1882, by Henry Vizetelly.

END NOTES:

1. The Duboscq Megascope/Photoelectric Microscope is described here as a specialized magic lantern. Although its operation is different than what is generally classified as a magic lantern, in the end, it has the same function as a magic lantern; it projects images onto a screen. In searching the primary literature, I failed to find any manufactures or distributors of the photoelectric microscope identifying it as a magic lantern. However, among those that used it, many referred to it, along with the oxyhydrogen and solar microscopes, as a type of magic lantern. Example: "The solar microscope is in reality a magic lantern illuminated by the solar rays …[the] photoelectric microscope is nothing more than the solar microscope, but illuminated by the electric light…" Elementary Treatise on Physics, by E. Atkinson, pp453 & 455, published by H. Bailliere, London, 1866.

2. In addition to pigeons, dogs were also air-lifted

*out of Paris and released with mailbags attached. The dogs, once released with their mailbags, disappeared into the French country side never to be seen again; this effort was immediately abandoned, pigeons would prove more reliable. Beyond balloon service out, and pigeon service in, other communications crossing enemy lines included "Line-Crossers", individuals attempting to slip through enemy lines carrying messages. Many diplomats were allowed passage through the barricade; some slipped documents and mail through, both coming and going. Operatives with the International Red Cross at times carried hidden messages across lines. Just a note of interest regarding the Red Cross, it was during the Franco-Prussian war that International Red Cross Societies undertook to establish a universal Red Cross Solidarity [IRRC No. 117, Dec 1970, p663], developing mutual ties beyond their national boarders, to aid all that suffered, irrespective of nationality or allegiance. The most noteworthy attempt, other than pigeons, to get messages past enemy lines and into Paris was the "*Boules de Moulins*" [Balls of Moulins]. These were zinc canisters about the size of a basketball equipped with fins and capped with a sealed cover, (fig.13), each able to hold 500-600 letters. The idea was to let them float with the current down the Seine River, just below the surface, and into Paris where nets stretched across the river would catch them. This was a very unsuccessful endeavor! The nets were damaged by ice flows, many "balls" went through the nets and on down the river, other containers ended up embedded in the river banks. The first one retrieved was in March 1871, shortly after the war ended. In total, 55 balls were released, about 30 have since been recovered, most before 1910, there-after, one in 1942, another in 1952, one in 1968 and 1982, the most recent was 1988.*

3. Different reports vary as to the exact amount (weight) of mail carried by this balloon; accounts differ for many of the balloons, but the figures that appear are usually reasonably close to one another; therefore, if not the actual, correct amount, it is usually close-enough.

4. In reference to the packet of mail jettisoned into the North Sea: Through the Air, *by John Wise, p235, reports "On the morning of the 30th of November, 1870, the Dantzic of Christiansand arrived at Leith (Scotland) with a box containing sixty-five kilogrammes of letters, picked up by fishermen." Christiansand is the archaic spelling for the coastal town of Kristiansand, Norway. Dantzic may refer to Gdañsk, Poland, a city on the Baltic Sea, former spellings of the name include Dantzig, Dantsic and Dantzic, but otherwise this reference to Dantzic is undetermined ?? Another account notes that the mail was retrieved at the coastal town of Mandal, Norway. Whatever the truth may be, the fact is, the mail survived and was delivered. For detailed accounts of this Norwegian Peril:* The Siege of Paris by an American Eyewitness, *p277-282, Robert Lowry Sibbet, Meyer Publishing, Harrisburg, PA, 1892. Also:* Through the Air, *p233-240*

5. See references: Exhibit of Balloon Mail. *Pages are not numbered, but they are listed chronologically accordingly to the date the balloon departed Paris, i.e.,* le Neptune, *first balloon launched, 23 September 1870, to the 67th launched, the "*Général Cambronne*" – January 28, 1871.* Jacquard*, the 34th, was launched 28 November 1870.*

6. All of the original sheets printed by letter-press and microphotographed are in the archives of the postal museum in Paris.

***Figure 13: Boules de Moulins** (literally, Mill Balls - Ed). See endnote No.2 for details. A comprehensive article on the history of Boules de Moulins is available online at:* Histoire des Boules de Moulins, *translated by Google:* _

https://sites.google.com/site/moulinsvuparreneguillot/curios/boules-de-moulins

A Letter Leads to a Look at Sears Lanterns

By Larry Cederblom

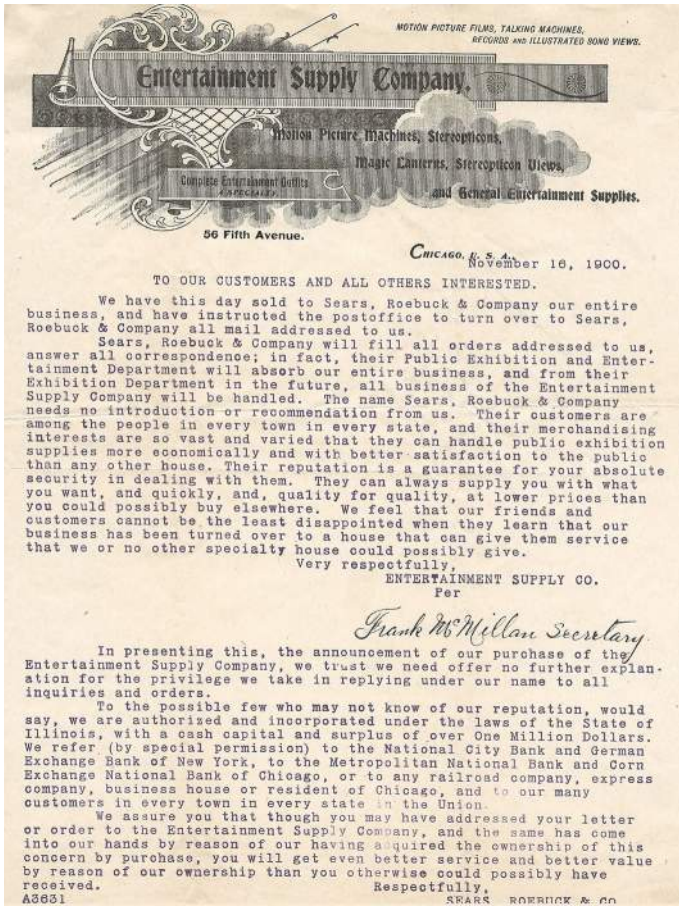
A thank you goes to society member Tim Shinners for sharing with me a letter he found while thinning out his files. This letter dated November 16, 1900, from the Entertainment Supply Company of Chicago, Illinois informs their customers of the sale of their stock and business to Sears Roebuck and Company. See fig 1.

The letter reads: *Sears, Roebuck and Company will fill all orders addressed to us, answer all correspondence; in fact, their Public Exhibition and Entertainment Department will absorb our entire business, and from their Exhibition Department in the future, all business of the Entertainment Supply will be handled.*

We feel that our friends and customers cannot be the least disappointed when they learn that our business has been turned over to a house that can give them service that we or no other specialty house could possibly give.

Back in 2005 late member Bob Doran also shared with society members a special printing of a booklet from his collection. The booklet "*How To Make A Big Income*" is from the Entertainment Supply Co.and now we can share it again.

The Entertainment Supply Company business booklet was complete with fold-out pages showing their complete Pamoramic Public Entertainment Outfit for $54.75, See Fig. 2.



MOTION PICTURE FILMS, TALKING MACHINES, RECORDS AND ILLUSTRATED SONG VIEWS.

Entertainment Supply Company.

Motion Picture Machines, Stereopticons, Magic Lanterns, Stereopticon Views, and General Entertainment Supplies.

Complete Entertainment Outfits A SPECIALTY

56 Fifth Avenue.

CHICAGO, U. S. A., November 16, 1900.

TO OUR CUSTOMERS AND ALL OTHERS INTERESTED.

We have this day sold to Sears, Roebuck & Company our entire business, and have instructed the postoffice to turn over to Sears, Roebuck & Company all mail addressed to us.

Sears, Roebuck & Company will fill all orders addressed to us, answer all correspondence; in fact, their Public Exhibition and Entertainment Department will absorb our entire business, and from their Exhibition Department in the future, all business of the Entertainment Supply Company will be handled. The name Sears, Roebuck & Company needs no introduction or recommendation from us. Their customers are among the people in every town in every state, and their merchandising interests are so vast and varied that they can handle public exhibition supplies more economically and with better satisfaction to the public than any other house. Their reputation is a guarantee for your absolute security in dealing with them. They can always supply you with what you want, and quickly, and, quality for quality, at lower prices than you could possibly buy elsewhere. We feel that our friends and customers cannot be the least disappointed when they learn that our business has been turned over to a house that can give them service that we or no other specialty house could possibly give.

Very respectfully,
ENTERTAINMENT SUPPLY CO.
Per
Frank McMillan Secretary

In presenting this, the announcement of our purchase of the Entertainment Supply Company, we trust we need offer no further explanation for the privilege we take in replying under our name to all inquiries and orders.

To the possible few who may not know of our reputation, would say, we are authorized and incorporated under the laws of the State of Illinois, with a cash capital and surplus of over One Million Dollars. We refer (by special permission) to the National City Bank and German Exchange Bank of New York, to the Metropolitan National Bank and Corn Exchange National Bank of Chicago, or to any railroad company, express company, business house or resident of Chicago, and to our many customers in every town in every state in the Union.

We assure you that though you may have addressed your letter or order to the Entertainment Supply Company, and the same has come into our hands by reason of our having acquired the ownership of this concern by purchase, you will get even better service and better value by reason of our ownership than you otherwise could possibly have received.

Respectfully,
SEARS, ROEBUCK & CO.

A3631

Fig. 1 Letter from Entertainment Supply Company,1900

MOTION PICTURE FILMS, TALKING MACHINES, RECORDS AND ILLUSTRATED SONG VIEWS.

Entertainment Supply Company.

Motion Picture Machines, Stereopticons, Magic Lanterns, Stereopticon Views, and General Entertainment Supplies.

Complete Entertainment Outfits A SPECIALTY

56 Fifth Avenue.

CHICAGO, U. S. A.,

How To Make
A Big Income
From A Very Small Investment
No Business Experience Required
No Soliciting.
No Goods To Sell
The Work Is High Class, Pleasant.
Brings Big Returns.
And Any One Can Do It.
Now Is Your Opportunity.
Don't Let It Pass.
Our Complete Pamoramic Public Entertainment Outfit for $54.75
and What it Consists of
1—The Enterprise Stereopticon.
2—The Enterprise Giant Incandescent Vapor Illuminating Apparatus.
3—The Polished Wood Carrying Case for Stereopticon.
4—The Fifty-two Transparent Photographic Views.
5—The 2,000 Admission Tickets.
6—The Polished Wood Case for the Photographic Views.
7—The Slide Carrier for changing the views quickly.
8—The Rubber Type Outfit for printing in the dates, place where exhibition is to be given, prices of admission, etc.
9—The Type Holder for holding the type while printing.
10—Tweezers for handling and setting the type.
11—The Ink Pad for inking the type.
12—The Instruction Book, which tells all about how to operate the outfit, how to secure the use of Churches and Halls and all about how to make the business a success.
13—The Lecture Book, containing interesting descriptions which are to be read or recited as each view is shown with the Stereopticon.
14—The White Screen, containing 120 square feet of surface on which the brilliantly illuminated views are shown.
15—The 500 Large (18x24 inch) Advertising Posters, used to advertise the exhibitions.
FOR A COMPLETE DESCRIPTION of the Outfit and the possibilities in a business way, see front part of Catalogue.

Fig. 2 Booklet cover and fold out pages from Entertainment Supply Company

Some of the copy from the booklet:

A Very Profitable Field

In addition to the opportunities for making big money in opera houses, churches, and halls in the large cities and towns, is the farming or mining districts outside of the towns and cities where the people see very little of up-to-date and high-class entertainment, are always very easy to interest and patronize liberally anything in this line. They also invite and are ready to assist in anything which promises to assist their church or social organization in a financial way.

The outfit Consisting of the following:

- **The Enterprise Stereopticon**
- **The polished wood carrying case**
- **Fifty-two transparent photographic views**
- **2,000 admission tickets**
- **Book of Instructions**
- **Polished wood case for the photographic views**
- **Slide carrier**
- **Lecture Book**
- **White screen, 120 square feet**
- **500 (18x24 inch) Large posters**
- **and much more**

The booklet emphasized the ability to make big money with their complete entertainment outfits. The booklet reads *"make $3,000 to $10,000 per year"* which is equivalent in purchasing power to $93,000 to $310,000 today. They emphasized "*Large Fortunes Have Been Made in this Line of Work*"

This was a time that many companies emphasizing the same way of making big money doing public entertainment using the lantern. Ads are shown here below by the McAllister Co and the Chicago Projection Co.

The Entertainment Supply Company appeared in the Daily Illini, 21 February 1900. Fig. 3 below.

YOU CAN MAKE BIG MONEY
Entertaining the Public.
$30 to $300 and more per week without previous experience. No other business pays such large returns for the little effort required. We furnish complete outfits. The work is easy, strictly high class and any man can operate the outfit by following our instructions. Write for particulars and copies of letters from those who are making BIG MONEY on our plan. ENTERTAINMENT SUPPLY CO., Dept. Alpha, 56 Fifth Ave. CHICAGO, ILL.
Mention this paper when you write.

More about this period of time.

From American Magic-Lantern Theater - Film History https://www.magiclanternshows.com/filmhistory.htm

By it's heyday at the end of the Victorian period, magic-lanterns were everywhere -- in homes, in churches, in fraternal lodges, in schools, in large-scale halls and theaters, and as a regular part of home and public entertainment. At that time there were probably between 30,000-60,000 lantern showmen in America, giving between 75,000 and 150,000 shows a year.

Lanterns came in all sizes and shapes, from toy lanterns for children, to those used in large halls -- huge brass-and-mahogany, double-lens machines lit with "limelight." The limelight was created when oxygen and hydrogen were squirted on a piece of limestone which turned incandescent once the gases were lit, and produced a light as powerful as that in a modern movie projector. The lantern projected hand-colored slides on a full-sized screen.

As you can see at this period in time there was a very large demand for lantern projectors and slides. It's fortunate that we have examples of advertising, instruction books, and other printed materials that were produced to educate and instruct the consumer at that time.

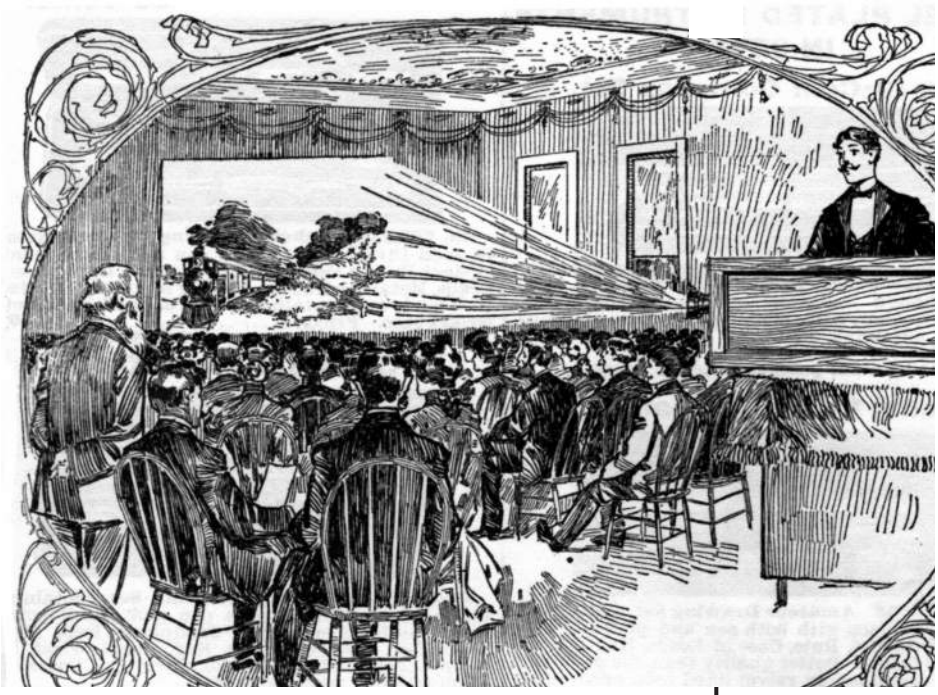
From Editors of Encyclopaedia Britannica
The 1899 Sears catalog featured color images of carpets, furniture, and china. In the photographic supplies section Sears offered "Special Lecture Outfits" giving the purchaser projection equipment, a screen, advertising posters, admission tickets, and a printing outfit, everything an entrepreneur needed to set up a theater for paying customers. The optigraph moving picture equipment worked with either electricity or a system using a gas process to provide illumination. Limes were one of the ingredients used in these gas systems helping coin the phrase "in the lime light."

From the information that has been saved and shared by those interested in lanterns, we have a list of lantern names. The following is just a partial list of model names:

Argo	**Badger**
Balopticon	**Boys Own**
Brilliant	**Cabinet**
Champion Sciopticon	**Electro-Radiant**
Euphaneron	**GEM**
Helioscopic Lantern	**Laterna Magica**
The Little Buckeye	**Metamorphoser**
Monarchy	**New York Model**
Optimus	**Patent Lantern**
The Praestantia	**Sciopticon**
The Terpuoscope	**The Yale**

So Tim's letter has led us to looking at the supplier Sears, Roebuck and Company, Cheapest Supply House on Earth. Now it's time to take a look at the Department of Public Entertainment Outfits and Supplies from Sears, Roebuck and Company lanterns.

SEARS, ROEBUCK & CO., Cheapest Supply House on Earth,
Chicago. CAT ALOCUE No. Ill. 1902
The Sears Department of Public Entertainment Outfits and Supplies



IN THESE PAGES we shall describe outfits for public exhibition work such as have never been brought together before, at lower prices than other dealers could offer them, and of a quality which it is impossible to surpass.

THE WONDERFUL GRAPHOPHONE TALKING MACHINE In its newest and most approved type, is the giant-voiced marvel of the present century

THE STEREOPTICON PANORAMIC EXHIBITION portrays illustrations of strange lands, men, and countries, the varied beauties and grandeur of our own land, and illustrations of the all-absorbing topics of the day. We aim to emulate the example of the great metropolitan daily and to illustrate on canvas the important events of the day.

Here is some of the copy from this Department:

Our experience in the past has proved that public exhibition work is extremely profitable and, with comparatively small investment, affords to the exhibitor an opportunity for realizing very large profits, and in addition, opens up to him a line of business that is pleasant as well as invaluable in the development and building up of a successful businessman.

THIS DEPARTMENT is maintained for the information of those who contemplate entering the exhibition field, or those who have done so, desire to "stay in front" and keep their exhibition outfits up to date and consequently successful, and with ability, energy, and push, be the means of enabling the exhibitor to accumulate a fortune.

PUBLIC EXHIBITION WORK has never been brought to the same state of perfection as now. Our outfits are entirely new, are founded on the newest kind of intensely interesting, new, and up to date subjects.

ILLUSTRATED SONGS the present most effective method of illustrating the popular songs of the day by means of stereopticon pictures, showing the various scenes and incidents as they are described in the song itself, is new and has proved a most wonderful success wherever exhibited.

NO PREVIOUS EXPERIENCE NECESSARY, no ability as a public speaker required. Some of our most successful entertainers had never spoken in public before.

All of these are provided with beautifully illustrated advertising matter and admission tickets. All are complete in every respect and ready to go at once to work. If you are undecided as to exactly what you need, write us for advice which is always at your command. Let us know what changes you would prefer to make on these outfits and we will quote you prices on them altered to suit your requirements. Any two or all three of these types may be satisfactorily combined to make up a high- grade outfit, and posters advertising the combined attraction will be furnished free with each order.

Introducing my Sears, Roebuck lantern The Seroco.

216 SEARS, ROEBUCK & CO. (Inc.), Cheapest Supply House on Earth, Chicago. CATALOGUE No. 110.

No. 21535

THE SEROCO MAGIC LANTERN.

THE SEROCO IS A WELL MADE MAGIC LANTERN. Is constructed e pressly for professional work. This and the Enterprise are t only professional lanterns that we list this year, as the two cover the field entir and will fill the demand for a low priced lantern as well as the highest grade ste opticon money can buy.

THE SEROCO HAS A POLISHED OAK BASE, with planished steel lamp hou with hinged door at the rear end, bellows for adjusting the focus, fine double rectilinear objective lens with rack and pinion for fine adjustment focus and 4-inch condensing lenses. The front, condenser mountings, rods a brackets are heavily nickel plated, and add much to the beauty and appearance the lantern. We furnish with this lantern either the 4-wick kerosene lamp, calcium jet for calcium light, or an acetylene gas burner all complete for $22.5 No. 21535 ORDER BY NUMBER.

Electric light can also be used in this lantern. Above prices are for lanterns alon and do not provide for any equipment, such as screens, views, etc.

Profit, Amusement and Instruction for the Young Folks.

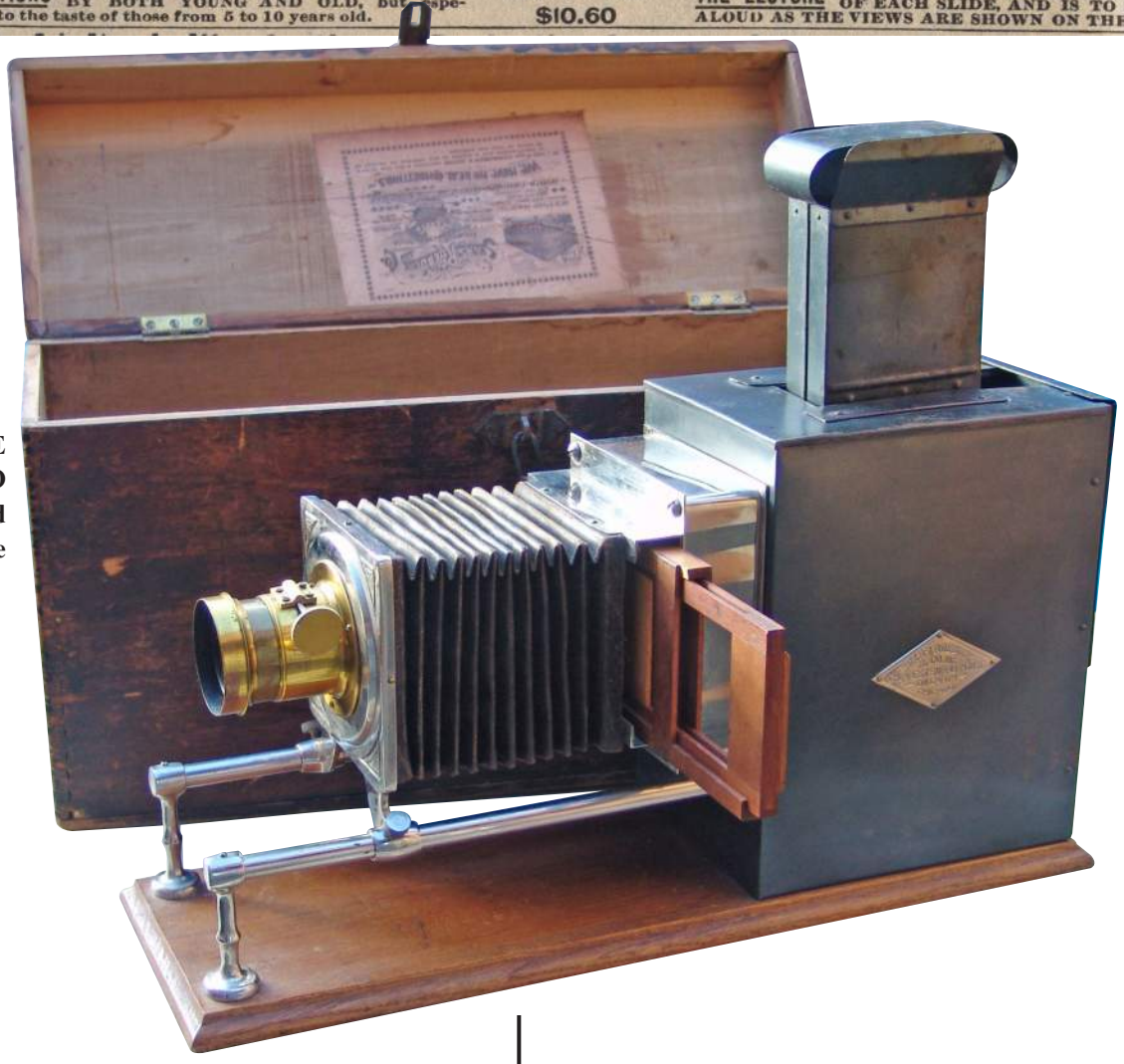
By giving Parlor Exhibitions with our No. 21600 Illustrated Lecture Exhibition Outfits . . . . .

A $20.00 COMPLETE OUTFIT FOR $10.60. THE OUTFIT CONSISTS O one good quality magic lantern 30 fine magic lantern views, choice of 3 sets, either comic pictures, Americ history or bible history; 1 slide holder, for holding views in place in the lantern a well written lecture, especially suited to audiences composed of young folk 100 large advertising posters, 9x12 inches, with 1 rubber printing outfit for fil ing in places where exhibitions are to be given, dates, etc.; 200 admission tick ets; 1 carrying case for outfit and everything needed to successfully conduct regular exhibition business. This is a plan which will appeal to almost any intelli gent youth, and should be encouraged by parents; for by charging a small price fo admission, say 5 to 10 cents, the cost of the outfit will be made in a few evenings an all further effort will be rewarded by net profit.

THE EXHIBITIONS WILL BE APPRECIATED AND ENJOYED BY BOTH YOUNG AND OLD, but espe- cially caters to the taste of those from 5 to 10 years old.

COMPLETE FOR $10.60

THE LECTURE CONSISTS OF A SHORT DESCRIPTIO OF EACH SLIDE, AND IS TO BE REA ALOUD AS THE VIEWS ARE SHOWN ON THE SCREE



THE SEROCO with wood carrying case

From Sears, Roebuck and Company 1900 Catalog
Cheapest Supply House on Earth
Chicago, Ill

THE SEROCO Magic Lantern

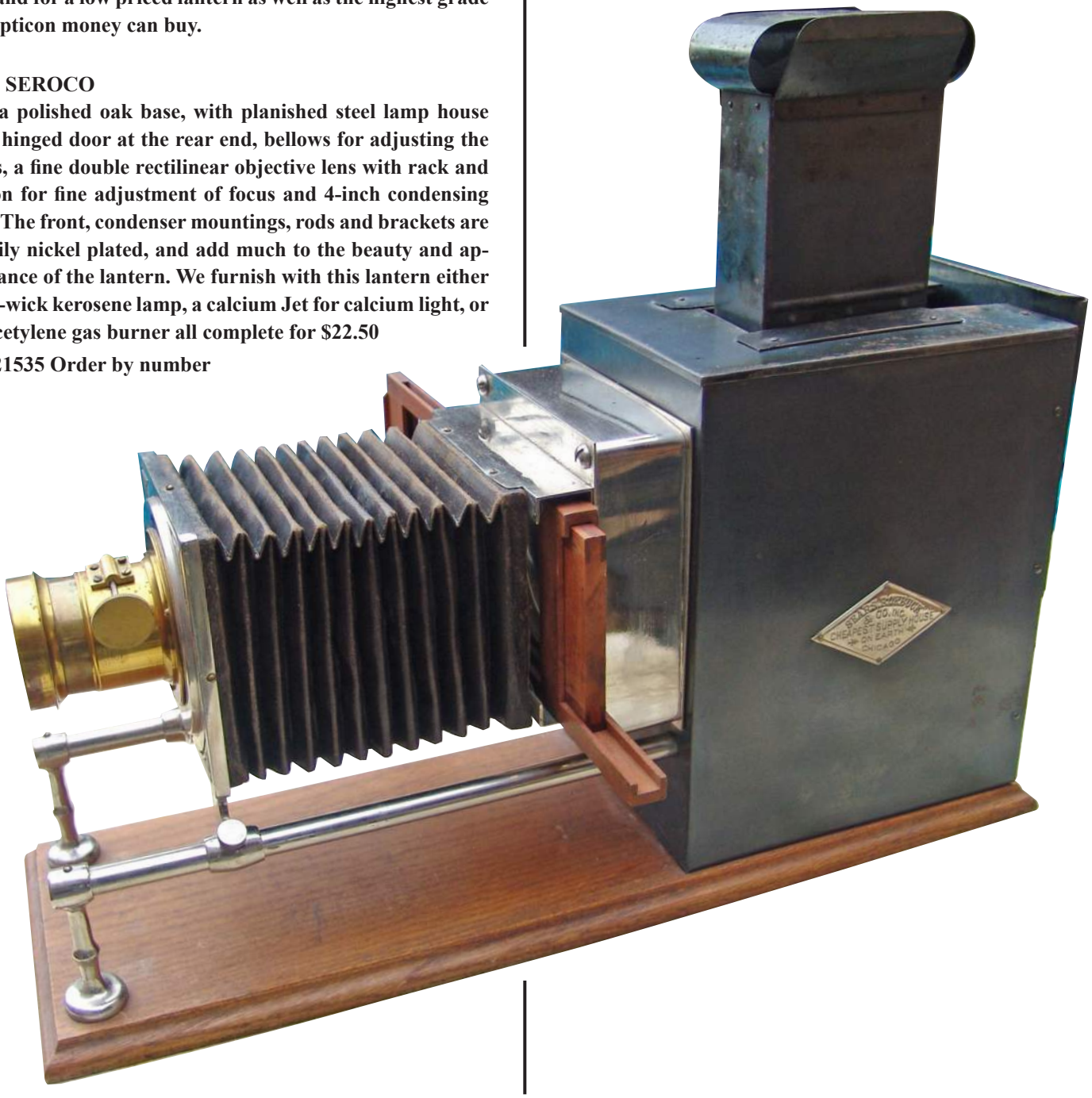
THE SEROCO IS A WELL MADE MAGIC LANTERN. Is constructed expressly for professional work. This and the Enterprise are the only professional lanterns that we list this year, as the two cover the field entirely and will fill the demand for a low priced lantern as well as the highest grade steropticon money can buy.

THE SEROCO
Has a polished oak base, with planished steel lamp house with hinged door at the rear end, bellows for adjusting the focus, a fine double rectilinear objective lens with rack and pinion for fine adjustment of focus and 4-inch condensing lens. The front, condenser mountings, rods and brackets are heavily nickel plated, and add much to the beauty and appearance of the lantern. We furnish with this lantern either the 4-wick kerosene lamp, a calcium Jet for calcium light, or an acetylene gas burner all complete for $22.50

No. 21535 Order by number

Electric light can also be used in this lantern. Above prices are for lantern alone and do not provide for any equipment, such as screens, views, etc.

THE EXHIBITIONS will be appreciated and enjoyed by both young and old, but especially caters to the taste of those from 5 to 10 years old.



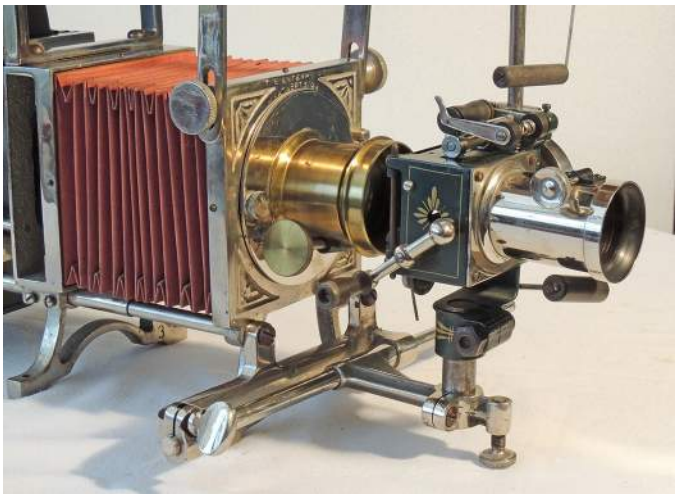
The 3-wick kerosene lamp housing.

Front close-up of double rectilinear objective lens with rack and pinion for fine adjustment of focus.

This now brings us to another Sears Roebuck lantern featured in their Department of Public Entertainment Outfits and Supplies.

I use this Sears lantern in displays, shown below, at the various presentations that the Group Northwest give at historical groups and museums here in the Northwest. I think the Sears, Roebuck brand appealed to value-oriented customers and then there was the convenience of mail-order shopping during its time.

From the David Evans collection comes the Biunial Optigraph and Stereopticon.



In the Sears, Roebuck and Company 1900 Catalog only the single lantern is shown and is labled in the catalog as:

Instantaneous combinations

Latest invention

Projects Motion Pictures and Stereopticon Views…

Optigraph and Stereopticon

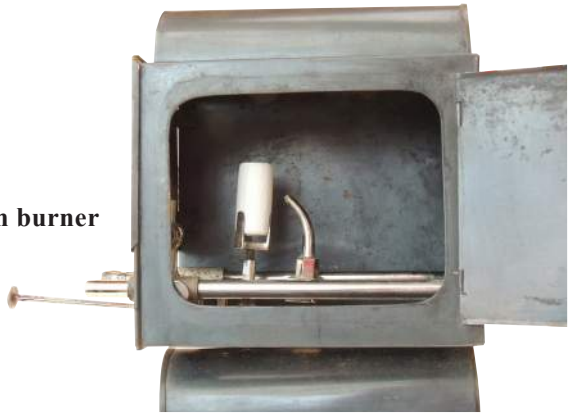
The change from one to another can be made in two seconds

A First Class Stereopticon

and the only successful combination ever produced…

No 21205 Stereopticon with the improved 1900 Model Optigraph, complete with either calcium burner or electric arc lamp included.

calcium burner



Tips on Giving Magic Lantern Shows

by Terry Borton

Editor's Note: *This article continues a series of short Tips on how to improve your magic-lantern shows. Terry Borton's American Magic Lantern Theater (AMLT) has given more than a thousand shows over the last 25 years, from Podunk to Lincoln Center. He says he's also made a thousand mistakes, and hopes these Tips will help you make a few less.*

4. The Lantern

Your lantern is like a horse - beautiful, functional, and sometimes very cantankerous. You'll learn to love it.

Your first decision is whether to get a single lantern, or a biunial (2 lens lantern). A biunial is certainly to be preferred, because you can more smoothly move from slide to slide, and you can superimpose one image over another. But it's a lot more expensive ($2,000-5,000 vs. $100-500), and for small shows you can get along perfectly well with a single, if it's lit with a good bulb. (I use 250-watt halogen bulbs. They give a very powerful light, and a wonderful image, but they do get hot. You'll have to be careful not to let the light shine on one slide for too long.) For instructions on buying and lighting lanterns, go online to The Museum of American Magic Lantern Shows, More Info, Collecting Tips. And here's a blog by Matt Schnittker that lays out all the options:

http://mattschnittker.blogspot.com/2020/08/magic-lantern-illumination.html

Let's assume you have a single. How can you get the most out of it? You can change slides by sliding one after another, either in a slide changer, or, if the slides are wood-framed, just pushing one after another. Or you can "dissolve" by either bringing down the light between slides, or blocking the light with the lens cover or your hand as you move from slide to slide, or using a single dissolver (see below).

But the biunial is a definite advantage. Although mine looks big in the picture above, it's actually one of the smallest wooden biunials available. If you want to get a biunial, I'd caution against getting a big one, with those giant brass lenses. They look very cool, no doubt about it. But one thing I've learned over the years: A lantern gains weight—about 2 pounds a year. Over ten or twenty years, that builds up. I can still carry my lantern by myself; I'd never be able to manage one of those big ones.

I'm not fighting with my biunial lantern, just getting excited during the show!

The Dissolver: A biunial has a lot more flexibility than a single, but to make it work well you need a good dissolver. I recommend a Pass and Seymour 90681, available over the net. Of all the common household dissolvers it has the longest dissolve range, and (very important) fades to "out" and "on" without a sudden jump. I have put my two dissolvers in a separate box with an electrical connection that snaps into the lantern's lights (see pix). This has two advantages. I can separate the dissolver's weight from the lantern, which is important when I'm flying. And the dissolver is flat on the table, rather than vertical in the lantern. That's a lot easier to handle during a show. I've also set up the dissolver so that one lens is controlled with a switch that goes "on" when the switch is up, the other with a switch that goes "on" when the switch is down. That means that with a one-handed single motion I can turn down the light in one lamp and turn it

up in the other. That leaves the other hand free to manage slides, gesture to the audience, etc. It does take some practice, but it makes for a smoother, faster-paced show.

Dissolving sliders flat on the table

Positioning the Lantern: It's important to have figured out ahead of time how far your lantern needs to be from the screen. Set up your lantern in front of a wall, with an image of 7 feet that will fit comfortably on an 8-foot square screen. Measure the distance from lantern to wall. Then move the lantern back so you have a 9-foot image. Measure again. Then for a 11-foot image. Measure. Fourteen feet. Now you have a little chart of distances that you can use to tell your techie where your lantern table should be placed, depending on the size of the screen. (Be sure s/he uses the *height* of the screen, since that is always the smallest dimension of the screen, and will determine your image size.)

It's rare that you come into a venue and find that the lantern can be positioned so that it's perpendicularly vertical to the center of the screen. Some lanternists insist on this, but I don't. For too many venues that requirement is simply a show stopper, requiring that they build a special stage in the middle of the audience to lift up the lantern, etc. Instead, I work to get the lantern and screen as much in perpendicular vertical alignment as I can, because there's no question that the image looks better if the lantern is vertically at right-angles to the screen. It's brighter, and there is less distortion.

Usually, however, I need to tilt the lantern up to project on the screen. (Yes, this does create a "keystone effect"—a distortion of the image in which the top spreads out more than the bottom, like a keystone. If most images are round, and mine are, this effect is hardly noticeable because the part that "spreads out" is the smallest part of the image. If they images are square, well. . . they keystone. Only the purists will notice.)

Lifters: To get the lantern tipped up, I carry a series of "lifters"—wooden blocks of different sizes. The biggest have ridges attached to the edge, so that the next block in the pile won't slip off. And the lifters have non-slip mats pasted on

The Purposes of The Society shall be:

To establish an organization of people and entities interested in the collection, possession, conservation, restoration and maintenance of Magic Lanterns, Lantern Slides and related materials;

To encourage members to share their knowledge of Magic Lanterns, Lantern Slides and related materials with any interested persons or entities;

To coordinate research, catalogue material and disseminate information about the history, uses, development and preservation of Magic Lanterns and Lantern Slides; and

To promote exhibitions and/or shows utilizing Magic Lanterns, Lantern Slides and related equipment, in known methods of use in as historically accurate a manner as possible.

Magic Lantern Society of US & Canada (abbreviated to MLS herein) and Editorial Policy.

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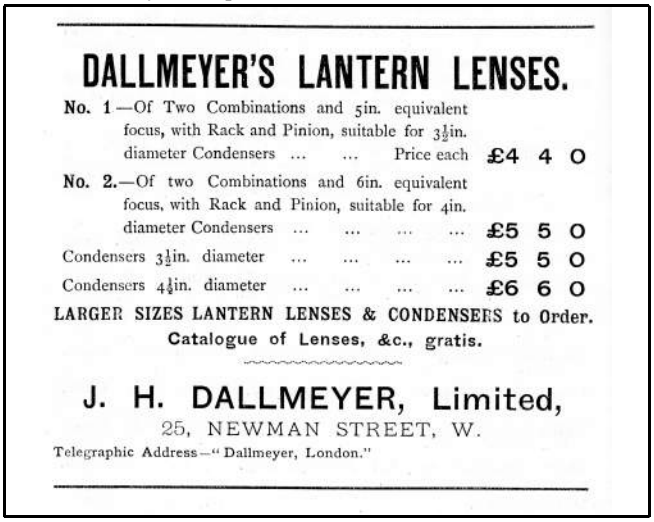
the bottom to keep them from sliding. Having cantilevered your lantern up in the air, you don't want those blocks to slip out from under you. Occasionally I have to supplement my blocks with books, covered with an extra piece of velvet, carried for the purpose. If the pile gets too high and the angle too steep, I strap the lantern down with gold cords.

Next Time: The Podium and Slide Boxes

Lifters in position to elevate the lantern



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The Magic Lantern Calendar

Exhibits

Through February 2021, ***Per Gioco,*** Museo di Roma, Rome Italy. Vintage collection from the golden age of toys, including magic lanterns.

Through March 2021, ***Magica Lanterna,*** The Whangarei Museum at Kiwi North, New Zealand. Magic lanterns and slides from their collection in a special exhibition and show featuring their Ernst Plank magic lantern.

Through April 2021, ***All You Need Is Light,*** Massillon Museum, Massillon Ohio USA. Equipment related to the photographic process including magic lantern and slides.

Through Dec 2026, ***The Story of the Moving Image,*** Australian Center for the Moving Image, Melbourne Australia. From magic lanterns to the latest in interactive technology

Beginning April 30, 2021, ***Balzer Collection,*** Academy Museum of Motion Pictures, Los Angeles CA USA. 9,000 magic lantern objects collected by former MLS president Richard Balzer.

Meetings

April 17. 2021, ***Spring Meeting,*** Magic Lantern Society, Birmingham, England.

April 29 – May 1, 2022, ***Magic Lantern Convention,*** Magic Lantern Society, Birmingham, England.

September 2022, ***Magic Lantern Convention,*** Magic Lantern Society of the US and Canada, Cleveland OH. Date TBA.

Online

Virtual Worlds in Early Cinema: Devices, Aesthetics and Audiences, Museu del Cinema, University of Girona, Spain. Oct 20-22, 2021. Call for papers is open until May 5; registration begins June 7.

Lower the Lights, Magic Lantern online exhibit at Cotsen Children's Library, Princeton University: https://library.princeton.edu/libraries/cotsen/exhibitions/MagicLantern/index.html

Lucerna – the Magic Lantern Web Resource, online database collaboration covering all aspects of magic lanterns. http://lucerna.exeter.ac.uk/

To add your magic lantern show, exhibition, or meeting to our calendar, drop a line to briandrogers@gmail.com.

Please note - in the present circumstances, it is best to check with the organisers before making firm plans - Ed.

Classified Advertisements

Wants

WANTED

English collector looking for figurines depicting itinerant lanternists and peepshowmen - examples shown here.

If you have any such pieces that you would like to sell please contact Mike Smith - kime1944@gmail.com

Sales

Phantasmagoria lantern by Frederick Cox, 100 Newgate Street, London, circa 1850. It has the original objective and condenser lenses and originally would have had an Argand oil lamp (now missing). Slide stage size is 4 1/2" top to bottom. The ring pull (below the objective lens) is to adjust the position of the lamp relative to the condenser lens.

Height overall 29 3/4".

Frederick Cox was an optical dealer working at 100 (later 98) Newgate Street from 1845 to 1901.

Price $500.

Contact David Evans -

secretary-treasurer@magiclanternsociety.org

This page available to members for Sales or Wants. Please contact the Editors

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